nucleic

ĕ

Run on:

Sequence:

```
EX441520 EX441520
ALO77453 Drosophil
BX446296 EX4462961
CC754863 P050-2-G0
ALO7798 Drosophil
BX415878 EX415878
ALD536104 AL536104
AL536104 AL536104
AL536104 AL536104
EX439779 EX419879
AL5378802 EX749802
AL071865 Drosophil
EX421282 EX421282
EX37788 EX421282
EX37788 EX421282
EX37788 EX421282
EX37788 EX421282
EX3778 EX421282
EX3778 EX421282
EX3778 EX421282
EX37758 EX421282
AL071865 Drosophil
EX446782 EX446782
ALD713719 AL541379
EX446356 EX446782
ALD7568 EX446782
EX3768 EX446782
EX3768 EX446782
EX3768 EX446782
EX3768 EX446782
EX3768 EX446782
EX3768 EX446782
EX3762 EX446782
EX3762 EX446782
EX3762 EX446782
EX3762 EX446782
EX3762 EX446782
EX3762 EX446782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BX437758 Homo sapiens THYMUS Homo sapiens cDNA clone CSOCAP008YB015-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AL514691 AL514691
AL532464 AL532464
BX45612 BX456702
BX406178 BX406178
BX40319 BX40319
BX3606178
BX360615 BX360615
AL069526 Dxcsophil
AL069526 BX377526
BX377526 BX377526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
Homo sapiens
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Bukaryota, Metazoa; Chordata; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1200)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AL513809 AL513809
BX415058 BX415058
AL532464 AL532464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Genoscope
Genoscope - Centre National de Sequencage
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: seqrefégenoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Linvitrogen. Contact : Feng Liang Email: : fliang@liferech.com Uhttp://fulllength.invitrogen.com/ Invitroden Corporation 1600
Faraday Avenue Genoscope sequence ID : CSOCAPO08CA01QP1.
BX338369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                         BX421282
CNS00DKY
BX377526
BX377526
BX377526
ALS13719
CNS020K7
ALS1317
BX446356
CNS020K7
ALS61317
BX443774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AL514691
AL532464
BX456702
BX406178
BX403519
CNS0022U
BX30615
CNS00EQL
CNS00EQL
CNS00EQL
AL513809
BX315268
                                                                                          CNS00KB5
CNS0039G
BX446296
CG754863
CNS00KHX
                                                                                                                                                                                                                                                                                                                              AZ549422
CNS00DKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BX437758.1 GI:30773605
BST.
                                                                                                                                                                                                                                                                                                                              6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

6.00

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 1
BX437758
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
  HTHEFTER AND WANDER DE RESTORES TO THE PERFECT OR BLANKE AND TO THE PERFECT OR BLANKE AND THE PE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BX437758 BX437758
BX415878 BX415878
BX441520 BX441520
BX446296 BX446296
                                                                                                                                                             February 24, 2004, 07:39:56; Search time 4765.54 Seconds (without alignments) 8565.996 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                            1 taaaaataatotatacattaa.......ctacacacactagaagaata 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
                         GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                             27513289 seqs, 14931090276 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BX437758
BX415878
BX441520
BX446296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             summaries
                                                                                                                     sw model
                                                                                                                                                                                                                                                                                                                                                       IDENTITY NUC Gapopt 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Π
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 st
                                                                                                                     using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_gss_lnv.
em_gss_pln:...
em_gss_run:...
em_gss_mam:...
em_gss_mam:...
em_gss_plo:...
em_gss_plo:...
em_gss_plo:...
em_gss_rvi...
em_gss_vi...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13 13
                                                                                                                                                                                                                                                          US-09-743-823-21
1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     em_esthum: *
em_estin: *
em_estin: *
em_estov: *
em_estpl: *
em_estpl: *
em_htc: *
em_htc: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gb_est2:*
gb_htc:*
gb_est3:*
gb_est4:*
em_est5:*
em_estfun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       em_gss_hum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   em estba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
1200
887
1201
                                                                                                                   nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sed
sed
                                                                                                                                                                                                                                                             Title: .
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83.8
80
79.8
79.4
                                                                                                                                                                                                                                                                                                                                                       Scoring table:
```

Minimum DB B Maximum DB B

Database

Result No.

Searched:

dd

a ò g

8

Db

ઠે

D

ò

g

ò

엄

8

g

 $\delta$ 

Db

ò dd ठे

ò

g

D,

ò P

ò

ò g

ò

```
/tissue type="THYMUS"
/clone_lib="Homo sapiens THYMUS"
/note="Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dI) primer. Five prime end enriched, adouble-strand cDNA was digested with Not I and cloned into the Not I and EcoRV sites of the pCMVSPORT 6 vector.
                                                                                                                                                                                               BX415878 15-MAY-2003
BX415878 Homo sapiens THYMUS Homo sapiens cDNA clone CSOCAP008YI04
5-PRIME, mENA sequence.
BX415878
  974 AAAATANWIAWIWAAWIWAAAAWIWWAIWWAWWIWIAAAAWIWIAITIIWWIWIAAAAAA 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 ITITITIACCAGAAATCCGTTAATATGTTAAAATATTACCAACTAATTTATAAATTTTAT 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             122 ITTAAGGCAATTAAGCATGTTTGATAAATATATATATATGTTATAAATACTTTTCAAAAG 181
                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genoscope - Centre National de Sequencage
BP 191 91006 BVRY cedex - France
Email: seqreféqenoscope.cns.fr Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. Contact: Feng Liang Email: fliang@lifetech.com U
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSOCAP008BB02QPI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.9%; Score 80; DB 13; Length 1200; 40.5%; Pred. No. 0.0015;
                                                                                     946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               144; Indels
                                                                AGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAA
                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 1200)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  302 AGGAAAAAAAAAATCAAAATTGAAAACAT 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CS0CAP008Y104"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     =
=
=
=
=
=
=
=
                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               53;
                                                                                                                                                                                                                                                                                 BX415878.1 GI:30765550
                                                                                                                                                                                                                                                                                                                        sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 40.5
Matches 134; Conservative
                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                           Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1094
                           958
                                                                902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                      LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
SOURCE
                                                                                                                                                                RESULT 2
BX415878
                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                \dot{\delta}
                                                                                               염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               상염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
/mol_type="mRNA"

db xref="texon.9606"
/clone="texon.9608YB01"
/tissue_type="THYMUS"
/tione="lb="Homo sapiens THYMUS"
/note="Vector: PDMVSDOTE 6, lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, with a soule-strand cDNA was digested with Not I and cloned into the Not I and CORV sites of the pCMVSPORT 6 vector.
                                                                                                                                                                                                                                                                                                                                                              184
                                                                                                                                                                                                                                                                                                                                                                                                                                           244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               957
                                                                                                                                                                                                                                                                                                                                                                                                    TITITIACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTAT 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           305 ATTGGGGGDWITTWWWTWTAARRDKTTTTTTTTWAAAAARATAKRGGRGGADAWTAWW 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      302 AGGAAAAAAAAGAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACCACC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               365 TWTWTTTTATWWWWWDDDDAKAWADAGAATWTTTTTWWRAGRGARKRDGTTDTRAADWW 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   842 ITATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGGG 901
                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                              122 ITTAAGGCAATTAAGCATGTTTGATAAATATATATATTGTTATAAATACTTTTCAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242 GITTAGACATITAGCCTTATTCTTTTTTTTTAAACAAAATAAATGTAAATGGAAAACCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             545 T-----TITITITAWWATWIATAITITIWWIWAWAAAASAGAWKAIWITITKKITTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  602 CTTGGTCTTGCTTTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTACTTGAAACTTATTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAATAATCTATACATTAAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            482 TATCCAACGGTCCTAAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 599 IWWKRAGGATWITITITITITWAARGDWKWIWIWTWITITITTTTTTTTTTTTTTWWW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            719 AGRAAWTTTTTTATKAGARRGATWTTAWAWWTATRARGARGADTTTTTATAWWTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  899 AAAAAT-AAAAWWTTWTATAAAAAWATTTWAWAWWRAAARAAWAWAAAAGAARAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    485 ITWWRAAAAAWWIWWWAARGRARGAITITITITITAAWWGGGAGRIAWWIWITITIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               422 ICAATACTITITICCACTICIAAAATCTIGGAGAITITGCACCGTTAACTAATTAAGIGTIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         542 GAAAGCCGTTATGTTTTAGGTTAGTGTTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                 7;
                                                                                                                                                                                                                                           Score 83.8; DB 13; Length 1200; Pred. No. 0.00037;
                                                                                                                                                                                                                                                                                 296; Conservative 173; Mismatches 469; Indels
                                                                                                                                                                                                                                           6.1%;
                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                              125
                                                                                                                                                                                                                                                                                                                                                                                                    62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              182
                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                      DRIGIN
```

GRL

0

Gaps

913

61

973

241

g

```
'organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                  BX446296.1 GI:30784407
                                                                                                                                     (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                487 AAAAAAAA 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                963 CAAGACAAA 971
                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               al Similarity
143; Conserv
                                                                                                                                        Homo
                                                                                                                      EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                DEFINITION
                                                                                                                                                                                                                          AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                   ACCESSION
                                                                                                                                                                                                         REFERENCE
RESULT 4
BX446296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     · 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                 BX441520 HOMO SADIEDS FETAL BRAIN HOMO SADIEDS CDNA Clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="homo sapiens FETAL BRAIN"
/note="Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA
was primed with a NotI-oligo(dT) primer. Five prime end
enriched, double-strand cDNA was digested with Not I and
cloned into the Not I and ECCRV sites of the pCMVSPORT 6
vector. Library was not normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 TTTTTTTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    797 AAITITIWWIWIAAAAIWIWIWWAWWIAWIWWAAIAWAIAIITIIWAWWAAIWAAAAIT 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09
                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 887)
1 (Achber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITIPAGGCAATIPAGCATGTITGATAAATATATATATTGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 TAAAATAATCTATACATTAAAAATTTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                              Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BRail: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Linvitrogen. This sequence belongs to sequence cluster 7316.r
Contact : Feng Liang Email : fliangelifetech.com URL :
http://fullength.lnvitrogen.com/ Invitroden Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODF018CE06NP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5.8%; Score 79.8; DB 13; Length 887; 42.6%; Pred. No. 0.0019; Live 44; Mismatches 146; Indels 0
 1154 WATWTAAATWTAWTTTWTAWMWTWAAAAAT 1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 TAGGAAAAAAAAAATCAAAATTGAAAACA 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
|mol_type="mRNA"
|db_xref="taxon:9606"
|clone="CSOBF018YJ1"
|tissue_type="FETAL BRAIN"
|dev_stage="fetal"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    557 дадададададададададададададад 527
                                                                                                                        CSODF018YJ11 3-PRIME, mRNA sequence.
                                                                                                                                       BX441520
BX441520.1 GI:30787976
                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Simil
Matches 141; C
                                                                                                                                                                                                               Ношон
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                         SOURCE
ORGANISM
                                                                                     LOCUS
DEFINITION
                                                   RESULT 3
BX441520/c
                                                                                                                                       ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                              AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ρp
```

8

g ŏ ò

à

/clone="XCLOBBOO1ZA03"
/tissue type="YEUROBLASTOMA"
/tissue type="YEUROBLASTOMA"
/clone lib="Homo sapiens NEUROBLASTOMA"
/note="Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, with a NotI-oligo(dT) primer. Five prime end enriched, the Not I and cloned into the Not I and cloned into the Not I and score sizes of the pCMVSPORT 6 vector.
Library was not normalized." 1201 bp mRNA linear BST 15-MAY-2003 BX446296 Homo sapiens NEUROBLASTOMA Homo sapiens cDNA clone XCLOBB001ZA03 3-PRIME, mRNA sequence. 0 306 842 722 246 782 366 426 486 Contact: Genoscope
Genoscope - Centre National de Sequencage
Brossope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Bmail: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Library was constructed by Life Technologies, a division of
Library was constructed by Life Technologies, a division of
Library was constructed by Life Technologies, a division of
Library was constructed by Life Technologies, a division 1600
Reraday Avenue Genoscope sequence ID : XCLOBBOO1ZA03FP1.

Location/Qualifiers 903 GATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGATAG TIGGICTIGCITTIGCGICTTITGITCAATITTICACGIGATTITGGTGAACACGCG AAAATCGAAAAATGAAATGTAAAAAATTTGAGGGGACAAATAAAATATGAAAGTCTAT 843 TATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGGGA 663 TACTIGAAACITATAAAATTACATAATTTTATAAGTTTCACTICTTATAATACTCA Gaps Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutele Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo 1 (bases 1 to 1201) ; 0 Length 1201; 5.8%; Score 79.4; DB 13; Length 38.8%; Pred. No. 0.0018; Live 60; Mismatches 166; Indels 1 (bases I to 1201) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished (2001)

GI:5616067

```
source
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loc
Matches
                                                                                                                                                                                            JOURNAL
                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BX334085
                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST 02-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    993 TATWATTTTTTWWWATTTTTTTTTTTTTTTAWTTTTTTAAATWTATAWAAAAAMATATAT 1052
                  D MRNA linear EST 02-MAY-200:
COT 25-NORMALIZED Homo sapiens CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue type="PLACENTA COT 25-NORMALIZED"
/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and BCOR V
sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09
                                                                                                                                                                       Craniata, Vertebrata, Euteleostomi,
Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                      Contact: Genoscope Genoscope Genoscope. Prance BP 191 91006 EVRY Cedax - France BP 191 91006 EVRY Cedax - France Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr interary was constructed by Life Technologies, a division of Invitrogen. Contact : Feng liang Email : fliangoliferech.com URL http://fulllength.invitrogen.com/ InVitroGen.Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            813 TAAAAAAAAAAAWWAAAAAAAWATTAATKARWTATWTWAAWRRAATWTTWTTTTTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 ITTTAAGGCAATTAAGCATGTTTGATAAATATATATATATTGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 GTATAAAGTTGATGATGGCGTGGTAGATTATTTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAAAATTAATCTATACATTAAAAATTTGATTTTAAAATTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                      Faraday Avenue Genoscope sequence ID : CSODIO58DC070P1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match

5.8%; Score 79; DB 13; Length 1165;
Best Local Similarity 39.3%; Pred. No. 0.0022;
Matches 130; Conservative 58; Mismatches 143; Indels
                                                                                                                                                                                                        1 (bases 1 to 1165)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                BX338369 mRNA BX338369 Homo sapiens PLACENTA COT 25-NORM clone CSODIO58YF14 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1113 WITITAWWIWIWAWWAAATAATAAAAAWA 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CS0DI058YF14"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301 TAGGAAAAAAAAAAATCAAAATTGAAAACA
                                                                                                                                                                       Chordata;
                                                                                              EX338369.1 GI:30343682
                                                                                                                                  sapiens (human)
                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                       Homo sapiens
                                                                                                                                    Ношо
                                  DEFINITION
                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                            AUTHORS
TITLE
JOURNAL
COMMENT
                                                                         ACCESSION
                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
CNS014PQ
BX338369
                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

CNSO14PQ 987 bp DNA linear GSS 26-JUL-1999 Drosophila melanogaster genome survey sequence SP6 end of BAC BACN12P22 of DrosBAC library from Drosophila melanogaster (fruit ALI), genomic survey sequence.

DEFINITION

LOCUS

ACCESSION

```
0
                                                                                                                                                                                                                                  - Web: www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk - . This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre Gretude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton pBeloBACII.
                                                                                                                                                                                                                  Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : segref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     784 AAATCGAAAAATGAAATGTAAAAATTTGAGGGGGACAAATAAAATATGAAAGTCTATT 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            888 АТИМААААМАМИМОВАААМОМИМИМИМИМИТАААМИТТАААААААААААМИМИМ 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1201)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         664 ACTIGAAACTIAITAIAAAITACAIAATITITAIAAGITITCACTICITAIAAIACTCAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                Drosophila melanogaster
Bukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ebpydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Wall-length CDNA libraries and normalization
Unpublished (2001)
Contact: Genoscope
Genoscope
Genoscope
BP 191 91006 FYRY cedex - France
Email: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. 987
/organism="prosophila melanogaster"
/organism="prosophila melanogaster"
/db xref="eaxon:7227"
/clone="BACN12P22"
/clone lib="brosBAC"
/plasmid="pselobAC11"
/note="end : SP6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 77.6; DB;
Pred. No. 0.004;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                            Drosophila melanogaster (fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  844 ATTTAAATTTTCCATTAGAATTCTAT 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BX334085.1 GI:3033283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
AL104456.1
GSS.
                                                                                                                                                                           Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
JOURNAL
COMMENT
```

Wed

```
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AWAAAT 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      969 AAAAAT 974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CNSOOKBS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 9
CNSOOKB5
                                                       FEATURES
                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BX441520 BY Homo sapiens FETAL BRAIN Homo sapiens CDNA clone CSODF018YJ11 3-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xrefe="taxon:9606"
/dloxe="CSODD006Y106"
/clone="CSODD006Y106"
/clone lib="NeUROBLASTOMA COT 50-NORMALIZED"
/clone lib="Homo sapiens NEUROBLASTOMA COT 50-NORMALIZED"
/note="lst strand cDNA was primed with a Not1-oligo(dT)
/note="lst prime end enriched, double-strand cDNA was primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and ECOR V sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182 TATAAAGTTGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTG 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 ITTITTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTAT 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITAAGGCAATTAAGCATGTTTGATAAATATATATATTGTTATAAAATACTTTTCAAAAG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

1. (bases 1 to 887)

1. W.B., Gruber, C., Jessee, J. and Polayes, D.

Full.length cDNA libraries and normalization

Unpublished (2001)
                                                                             ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 AAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq-CSODDO6DF03QP1&cluster=6562.r. Contac
Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODDO06DF03QP1.
Location/Qualifiers
Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster 6562.r more information about this cluster, see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedax - France
Email: sequenceope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 7316.r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                        5.6%; Score 76.6; DB 13; Length 1201;
larity 45.5%; Pred. No. 0.0051;
Conservative 29; Mismatches 145; Indels 0;
                                                                                                                                                                         1. .1201
/organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAAAAAAWTWTAMMAA 1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGAAAAAAAAAAATCAA 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BX441520.1 GI:30787976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                            145; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BX441520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1172
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                           Source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
BX441520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                       FEATURES
```

qq

ò dd à à

à 염 ò

```
GSS 03-JUN-1999
end of BAC:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          850 ATTITICCATTAGAATTICTATTITICCTTAGTTA-ATATGAGCTAGCCAGTTGGGAGATACA 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     786 TAWAWWAAATITIAATAAATATITIWWIATWWTAATATAWWIAATWWATWIATAWAAAA 845
                                                                                                                                                                                                               /close=CSODFOLSYJI"
/tissue_type="FETAL BRAIN"
/dev_stage="fetAL BRAIN"
/dev_stage="fetAL BRAIN"
/clone lib="Homo sapiens FETAL BRAIN"
/note="Organ: brain; Vector: pCMVSPORT_6; 1st strand cDNA
was primed with a NotI-oligo(dT) primer. Five prime end
enriched, double-strand cDNA was digested with Not I and
cloned into the Not I and ECGNV sites of the pCMVSPORT 6
vector. Library was not normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Drosophila melanogaster genome survey sequence T7 end of BAC: BACR39P05 of RPCI-98 library from Drosophila melanogaster (fruit fly), genomic survey sequence.
AL077453. GI:4956930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           909 CGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGATAGCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTACTTGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       610 TGCTTTTGCTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACGCGTACTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           670 AACTTATTATAAATTACATAATTTTATAAGTTTCACTTCTTATAATAATACTCATATAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Sukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterygota, Diptera, Brachycera, Muscomorpha,
Ephydroidea, Drosophilidae, Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID : CSODF018CE06NP1. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.6%; Score 76.4; DB 13;
42.5%; Pred. No. 0.0066;
tive 44; Mismatches 200;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                             organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1101 bp
                                                                                                                                                                 /mol_type="mRNA"
/db_xref="taxon:9606"
```

```
936 НИННИМИДТИМТТИТИМИМССМИНЕНСНИХНИМНИЧМҮССНУУСТСНТНАТТНУНУМСТ 995
                                                                                                                                                                                                                                                                                                                                                                                                                                           lib="RPCI-98"
                                                                                                                                                                                                                                                                                                                                                                                                                                                         'note="end : TET3"
                                                                                                                                                                                                                                                                                                                                                                                                                                       'clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     486
                                                                                                                                                                                                                                                                                                                                                         source
       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  С
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A . q
Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage :
BP 191 91006 ENEXY cadex - FRANCE (E-mail : seqref@genoscope.cns.fr
- Web : www.genoscope.cns.fr = FRANCE (E-mail : seqref@genoscope.cns.fr
- Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP).

The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see https://www.frulifily.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osocgawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial ECORI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; on bw sp. the ame strain used for the BDGP's pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1101 bp DNA linear GSS 03-JUN-1999 Drosophila melanogaster genome survey sequence TET3 end of BAC #BACKOSKIO of RPCI-98 library from Drosophila melanogaster (fruit Al063921.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  846 TIAAATITICCATIAGAATICTATITICCTIAGITAATATGAGCTAGCCAGTIGGGAGAT 905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TIGAAACITATAAATTACATAATTITATAAGITITCACITCTTATATAATACTCATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGATAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5.5%; Score 75.4; DB 29; Length 1101;
48.2%; Pred. No. 0.0084;
tive 10; Mismatches 149; Indels 0;
                                                                                                                                                                                                                                                                                                                                                 /organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db_xref="taxon:7227"
/clone="BACR39P05"
/clone_lib="RPCI-98"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Drosophila melanogaster (fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AL063921.1 GI:4941778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 48.2 es 148; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          966 GACAAAA 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           483 AAANAAA 489

    (bases
Genoscope.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
CNS0.039G
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                                                                                                                                                                                                                                  FEATURES
                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
```

```
Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage : BP 1919 19106E SVRY cedex - FRANCE (E-mail : segref@genoscope.cns.fr - Web : www.genoscope.cns.fr - Web : www.genoscope.cns.fr - Determination of this BAC-end sequence was carried out as part of collaboration with the Berkeley Drosophila Genome Broject (BDGP). The BDCP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDCP Drosophila melanogaster BAC library was prepared by Kazutoyo Gosegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswall Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial ECRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain v2; on bw sp, the same strain used for the BDGP's pl and EST libraries. A more detailed description of the library filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                636 TAAYYYYYTCMYYYHYMHWHAHAHAAAWWTTHTWWTHAYHWATYHYYYYMYCAMMCMCT 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194 GATGGCGTGGTGGTAATTTTAGTTCTAGGTTCGAATGCAAGTTGGTTTAGACATTT 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36 GACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTATTCAA 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              876 СWACMINHWHHWMHMHHHMACHAHHHTHMCMCHHHMHCTCHHHHTMYHMTCHWMWHMHW 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     546 GCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTACTTG 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            816 МНҮҮНТАҮТСМТИТННИМИТИПНИУННТМИНГТТТНИАМИНТНТИСМИМИНАТТИТМАТН 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTATTAAGGCAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      134 AAGCATGTTTGATAAAATATATATTATTATAAATACTTTTCAAAAGTATAAAGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             516 AWAAAAAAAAAAWAAWAAWATAAATWTWWTWWTTYTTWAAWATAAAMCMAAWYYHTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         696 НІСННСУУУУННУТАННІНІННИУАНУУММУУММАУУММУСТАСТУНУННННУНМАУНТ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           576 ТТҮГҮНҮҮТҮМТИТИТИНҮНГМҮТНАМАНТТИҮНИҮНТҮАМИНИМТИНИТИМАМИНИТТҮ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       314 A-----AATCAAAATTGAAAACATCATCGGTGGAGTCGAGAAGCCCACACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         426 TACTTTTTCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCCTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Drosophila melanogaster"
| mol_type="genomic DNA"
| db_ref="texon:7227"
| clone="BACROSKIO"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 5.5%; Score 75.2; DB 29; Best Local Similarity 18.5%; Pred. No. 0.009; Matches 130; Conservative 288; Mismatches 278;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ::
```

```
Srinivasan, J., Sinz, W., Jesse, T., Wiggers-Perebolte, L., Jansen, K., Buntjer, J., van der Meulen, M. and Sommer, R.J. An integrated physical and genetic map of the nematode Pristionchus
                                  CG754863 1391 bp DNA linear GSS 24-OCT-2003 P050-2-G05.za Ppa EcoRI BAC Library Pristionchus pacificus genomic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421 ITCAAIACTITITCCACTICIAAAAICTIGGAGAITTIGCACCGIIAACTAAAITAAGIGIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1128 ATATTTTATANATAATTATATAAATAAATTTAT-----ATAATTAAATATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 GTATAAAGTTGATGATGCGGTGGTAGAFTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1014 ATTANTAATATTTTTTAATAAANTATAANAAATTTATATAAAATTTTAAAATTTAAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 TAGGAAAAAAAGAAATCAAAATTGAAAACATCCGGTGGAGTCGAGAAGCCCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="pristionchus pacificus"
/mol type="genomic DNA"
/mol type="genomic DNA"
/strain="California"
/db_xref="taxon:54126"
/clone lib="ppa EcoRI BAC Library"
/note="The library was generated by a partial digest the genomic DNA with EcoRI and cloning into the BAC vector."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 TAAAATAATCTATACATTAAAAATTTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ITTITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 TITTAAGGCAATTAAGCATGTTTGATAAAATATATATATGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 CACGIGACCCAACAATATTAAAATAAGAGITIGCICTACAGTAAAIGCGAIACTITITIA
                                                                                                                                                                                                  Chromadorea; Diplogasterida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1391;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                           Max-Planck-Instituté for Developmental Biology
Spenannstr. 37-39, Tuebingen D-72076, Germany
Tel: 00497071601371
                                                                                                                                                                                                                                                                                                                                            Mol. Genet. Genomics 269 (5), 715-722 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 75.2; DB 29;
Pred. No. 0.0078;
0; Mismatches 478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fax: 00497071601498
Email: ralf.sommer@tuebingen.mpg.de
Class: BAC ends.
                                                                                                                                                                                                Eukaryota; Metazoa; Nematoda; Chi
Neodiplogasteridae; Pristionchus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
1. .1391
                                                                                  genomic survey sequence
                                                                                                                  CG754863.1. GI:37980782
                                                                                                                                                         Pristionchus pacificus
Pristionchus pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5.5%;
                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Sommer RJ
Evolutionary Biology
                                                                                                                                                                                                                                           (bases 1 to, 1391)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             377; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 377; Conserva
                                                                                                                                                                                                                                                                                                                                                                22835951
RESULT 12
CG754863/c
                                                                                                                                                                                 ORGANISM
                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                          JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                  VERSION
KEYWORDS
SOURCE
                                                                                                 ACCESSION
                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                      LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="mRNA"
/db xxef=texon:960s"
/clone="XCLOBBOOLZAD3"
/tissue_type="NEUROBLASTOWA"
/tissue_type="NEUROBLASTOWA"
/clone_lib="Momos sapiens NEUROBLASTOWA"
/note="Vector: pcMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, with a NotI-oligo(dT) primer. Five prime end enriched, couble-strand cDNA was digested with Not I and cloned into the Not I and EcoRV sites of the pcMVSPORT 6 vector. Library was not normalized."
                                                                                                                                                                                                                     BX446296 Homo sapiens NEUROBLASTOWA Homo sapiens cDNA clone XCLOBBOO1ZA03 3-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                         СҮНҮСТИНТҮИТАУИМАИТАНАМІТАТИЙИМИМИНИМАНИМІМИМИМИМАТАМИМСТСННИ 1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        603 TIGGICITIGCITITIGCGICTITITGITCAAITITITCACGIGAATITITGTIGGIGAACACGCG 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATCGAAAAATGAAATGTAAAAATTTGAGGGGGCACAAATAAAATATGAAAGTCTAT 842
  GICTIGCITITIGCGICTITIGITCAATITITICACGIGAITITIGITGGIGAACACGCGIAC 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93
                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1201)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACTIGAAACTIATTATAAATTACATAATTITATAAGTTICACTICTIATATAATACTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: seqrefégenoscope.cns.fr. Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Library as constructed by Life Technologies, a division of
Library was constructed by Life Technologies, a division of
Library was constructed by Life Technologies. a division of
Library was constructed by Life Technologies.

Invitrogen. Contact : Feng Liang Email : fliang@lifetech.com U
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : XCL0BB001ZA03FP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.5%; Score 75.2; DB 13; Length 1201; 40.4%; Pred. No. 0.0085; ive 53; Mismatches 96; Indels 0;
                                                                                                   TIGAAACTTATAAATTACATAATTTATAAGTTTCACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                Li.W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                       BX446296.1 GI:30784407
                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 40.4
1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        843 TATTTAAATT 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAAAATT
                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                           BX446296
                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               152
                                                                                                                        1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
                                         966
                                                                                    999
                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                        BX446296/c
                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                 RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                    dd
                                                                                                                    셤
    ð
                                                                                  ò
```

1129

09

7

10;

οĘ

1075

180

240

955

895

480

420

120

g

à

ò

q

ò

qq

ò

q

ð

g

ò

 $\delta$ 

```
/clone_lib="RPCI-98"
/note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CNSOOEVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  - web
                                                                                                                      Matches 149;
                                                                                                                                                                                                                                                                                                                                                                                       772
                                                                                                                                                                                                                                                                         530
                                                                                                                                                                                                                                                                                                               712
                                                                                                                                                                                                                                                                                                                                                                                                                             650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            892
                                                                                  Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
CNS00EVL/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                              ORIGIN
                                                                                                                                                                                            g
                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                   G
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submitted (02-JNN-1999) Genoscope - Centre National de Sequencage : Dibmitted (02-JNN-1999) Genoscope - Centre National de Sequencage : PRANCE (E-mail : seqrefégenoscope.cns.fr - Web : www.genoscope.cns.fr |
Determination of this BAC-end sequence was carried out as part of collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs .For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutcyo Oscogawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial ECORI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; on where the same strain used for the BDGP's pland bow to order individual BAC clones, the entire library and how to order individual From the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A linear GSS 03-JUN-1999 sequence T7 end of BAC:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of a
                                                                                                                                                                                                                                                     539
900
                                                                                                                                                                            599
                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                               479
                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                         419
                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drosophila melanogaster genome survey sequence T7 end of BAC:
BACR17N06 of RPCI-98 library from Drosophila melanogaster (fruit
                                                            ATATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC
                                                                                                  <u>ATTATAAAAAATTAAATTATATATTTTNTATNAAATTAATATTTAATATATAAAAATTA</u>
                                                                                                                                                                                                                661 CGTACTTGAAACTTATTATAAATTACATAATTTTATAAGTTTCACTTCTTATAATACT
                                                                                                                                                                                                                                                                                                                             ATAAAATCGAAAAAATGAAATGTAAAAATTTTGAGGGGGACAAATAAAATATGAAAGTCT
                                                                                                                                      TGAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCT
                                                                                                                                                                          Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Drosophila melanogaster"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Drosophila melanogaster (fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="genomic DNA"
/db_xref="taxon:7227"
/clone="BACR17N06"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        305 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358 AAAAAAAANNAAAAAAAAATT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fly), genomic survey sequence. AL077798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841 ATTATTTAAATTTTCCATTAGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AL077798.1 GI:4957174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genoscope
                                                                                                                                                                                                                                                     598
                                                            481
                                                                                                714
                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418
                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 13
CNS00KHX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
```

TITLE

COMMENT

```
ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GSS 04-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          767 датаматататмааааттамамтатамтанматамттатаммааатамамаааматам 826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Drosophila melanogaster genome survey sequence T7 end of BAC:
BACR29B23 of RPCI-98 library from Drosophila melanogaster (fruit
fly), genomic survey sequence.
ALOS69706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ECORI digestion of Demosophila DNA provided by the BDGP from the isogenic strain y2; on bw sp, the same strain used for the BDGP's pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library of filters for hybridization from the BACPRC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  : | | :: | | :: | | :: | | :: | | :: | | :: | | :: | | :: | | :: | | :: | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAAAGTCTATTATTTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTA
                                                                                                                                                                                                                                                      CAGGAGGCTACTTGGTCTTTTTGCGTCTTTTTGTTCAATTTTTCACGTGATTTTTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATAAATTAGAATAAAATCGAAAAAATGAAATGTAAAAAATTTTGAGGGGGGACAAATAAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCAGTTGGGAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAG
                                                                                                                                                                                                                                                                                                                                    GTIWGKKKKKRRWIWKTIKDKIKAAAATIAIWAAKAWAAAKAIKWKKIWITDIKWWKWIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGAACACGCGTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATAATACTCATATATATATAGGGTTTAGAATGCCAATTTTTAAAAAAGAATAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Drosophila melanogaster
Eukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterygota, Diptera, Brachycera, Muscomorpha,
Ephydroidea, Drosophilidae, Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear GSS 04-00
ence T7 end of BAC:
                                                                                                                                 m
                                                                                                                           68; Mismatches 172; Indels
Score 75; DB 29;
Pred. No. 0.011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          827 AAAWWATATAAAWAATAAAAAAAAAA 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Drosophila melanogaster (fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAGAGGGATAGCAAGACAAAAATCCAAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1101 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : www.genoscope.cns.fr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL069706.1 GI:4949849
      5.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 1101)
                                                                                                                                 Conservative
```

FEATURES

CS0CAP008BE02QP1

В

sednence

```
Faraday
                                                                                                                                                                                                                                                      308;
                                                                                                                                                                                                                         Query Match
Best Local S:
Matches 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    794
                                                                                                                                                                                                                                                                                                              1198
                                                                                                                                                                                                                                                                                                                                                                                                                              1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         443
                                                                                                                                                                                                                                                                                                                                           83
                                                                                                                                                                                                                                                                                                                                                                                                   143
                                                                                                                                                                                                                                                                                   23
                                                                                                                                                                                                                                                                                                                                                                                                                                                         203
            FEATURES
                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bp mRNA linear EST 15-MAY-2003
Homo sapiens cDNA clone CSOCAP008XI04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                             099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACGIGACCCAACAATAITAAAAITAAGAGIIIIGCICIACAGIAAAIGCGAIACIIIIIA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                  TITIPAGGCAATTAAGCATGITTGATAAATATATATATATTGTTATAAATACTTTTCAAAA 180
                                                                                                                                                                                                               900
                                                                                                                                                                                                                                          TTTTTTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTAAAATTTTA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi; Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

1. (bases 1 to 1200)

Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Full-length cDNA libraries and normalization

Unpublished (2001)
                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATATWATWWTATWTTTTWATWTATTTATTTATWTWTTWTATTWTATWTATAWWWT
                                                                                                                                                                                                                                                                                                                                                                                   WMATWWWIAWAAWIATATATATATATATWWIWATTWITWITTATWATWATATWW
                                                                                                                                                                                                                                                                                                                                                                                                                                             TATWATTWITWATWITITITITITITITITWIATITWAAAITATTTAATTAWWAATWAWI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAGGAAAAAAAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TICAATACTITITCCACTICTAAAATCTIGGAGATTIGCACCGTTAACTAATTAAGTGTT
                                                                                                                                                                                                                GTATAAAGTTGATGACGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                  GGTTTAGACATTTAGCCTTATTCTTTTTTTTTTAACCAAAATGTAAATGGAAAAACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             599 AWATTTATAMATTAATA-TAWITWIAAATTWITAATWITATTWITTAATTATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. Contact: Feng Liang Email: fliang@lifetech.com U
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                   TAAAATAATCTATACATTAAAAATTTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                        Gaps
                                                                                                                                                        1;
                                                                                                                             Length 1101;
                                                                                                                                                        Indels
                melanogaster"
                                                                                                                           Ouery Match 5.4%; Score 74.4; DB 29; Best Local Similarity 34.5%; Pred. No. 0.012; Matches 167; Conservative 90; Mismatches 226;
            /organism="Drosophila mel
/mol_type="genomic DNA"
/db_xref="texon:7227"
/clone="BACR29E2"
/clone lib="RPCI-98"
/note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BX415878 · 1200
BX415878 Homo sapiens THYMUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BX415878
BX415878.1 GI:30765550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5-PRIME, mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480 TTWW 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481 ATAT 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ношон
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        629
                                                                                                                                                                                                                                                                                                                                                                                                                                                719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                        899
                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                839
                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                      779
                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                  959
                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
BX415878/c
    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                          Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
QG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           염
```

g ò

ò

qq

8

qq

ò

8 8

à

ò

8

ò

```
/organism="Homo sapiens"
/mol_type="mRNA"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSOCAPONSYIO4"
/clone_lib="Homo sapiens THYMUS"
/clone_lib="Homo sapiens THYMUS"
/note="Vector: PCMVSPORT 6; 1st strand cDNA was primed
with a NotI-oligo(dT) primer. Five prime end enriched,
with a NotI-oligo(dT) primer. Five prime end enriched,
the Not I and GORNY sites of the pCMVSPORT 6 vector.
Library was not normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1019
                                                                                                                                                                                                                                                                                                                                                                            ы
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            662 тұмамттаататттататттаттатталаамаматтатаааатаааамамамаада
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    782 WIAWAWIWAIRITITAIGHWIRIAIAIRINIAIGIAITAAIAAIAWITICITRIWAAAAW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCGTCTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACGCGTACTTGAAA--CT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATTATAAATTACATATTTTATAAGTTTCACTTCTTATAATACTCATATAATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1138 THAITTITAATAWWAAWAAWTWTAWATTTATWAATAAAATTTTATWAATAWTYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTTAATATCCAACGGTCCTAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               503 CTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCCTG-----AAAGCCGTTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGATAAAATATATATATTGTTATAAATACTTTTCAAAAGTATAAAGTTGATGATGGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTGGTTTAGACATTTAGCCTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1018 TAWAWITITAWAWWIWWAIWWAWITITWAWITWAWIAWNIAITITIAIAWWITWWAWAAIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGAAAACATCATCCGGTGGAGTCGAGAAGCCCCACCACCTGACCCAACAATATTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          383 ATAAGAGITIGCICTACAGIAAAIGCGAJACTITITITATICAATACTITITCCACTICTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  838 TITIWAATITAWAAWITITIAAA----WITITITITWATITITIGIWATIWAAATAITIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTACTTGGTCTTGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATGAAATGTAAAAATTTGAGGGGACAAATAAAATATGAAAGTCTATTATTTAAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATATTGTTAAAATATTACCAACTAATTTAAAATTTTATTAAGGCAATTAAGCATGTT
                                                                                                                                                                                                                                                                                                                                                                              13;
                                                                                                                                                                                                                                                                                                                                   Length 1200;
                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                   Similarity 35.3%; Score 74.4; DB 13; Similarity 35.3%; Pred. No. 0.011; 98; Conservative 117; Mismatches 434;
Avenue Genoscope seque Location/Qualifiers
```

us-09-743-823-21.rst

QQ

g ઠે Search completed: February 24, 2004, 11:07:12 Job time: 4772.54 secs

\$

```
February 24, 2004, 09:43:26; Search time 605.765 Seconds (without alignments) 7901.989 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                        Published Applications NA:*

1: /cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*
2: /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUBLS.seq:*
2: /cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
4: /cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
5: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
6: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
7: /cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*
8: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
9: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
10: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
11: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
11: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
12: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
13: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
14: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
15: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
16: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
17: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
18: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ptodata/2/pubpna/US10A PUBCOMB.seq:
ptodata/2/pubpna/US10B PUBCOMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq

cgn2_6/ptodata/2/pubpna/US10_NBW PUB.seq:

cgn2_6/ptodata/2/pubpna/US60_NBW PUB.seq:

/cgn2_6/ptodata/2/pubpna/US60_PUBCOMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4617368
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2308684 segs, 1750822206 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                       OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table: IDENTITY_NUC Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                               US-09-743-823-21
                                                                                                                                                                                                                                                                                                                                                               Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                        Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

	Description	Sequence 1446, Ap	Sequence 114, App	Seguence 1196, Ap	Sequence 30, Appl	Sequence 40, Appl	Sequence 6389, Ap	Sequence 12666, A	Sequence 17949, A	Seguence 4584, Ap	Sequence 15014, A	Seguence 1974, Ap	Sequence 19050, A	Sequence 833, App	Sequence 227, App	Sequence 1594, Ap
	ID	US-10-311-455-1446	US-10-257-166-114	US-10-311-455-1196	US-10-239-676-30	US-10-240-453-40	US-09-814-353-6389	US-09-814-353-12666	US-09-814-353-17949	US-09-960-352-4584	US-09-960-352-15014	US-10-311-455-1974	US-09-814-353-19050	US-10-311-455-833	US-10-221-613-227	US-10-311-455-1594
	DB	14	16	14	14	14	10	10	10	σ	σ	14	10	14	12	14
	Query Match Length	6106	9019	7560	7195	7195	318	318	403	416	375	5511	385	7631	6487	6254
æ	Query Match	4.7	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.5	4.4	4.4	4.4
	Score	64.4	64.4	64.2	63.4	63.4	63.2	63.2	63.2	63.2	62.2	61.2	61	60.4	60.2	9
	Result No.		N	m	Ω <b>4</b>	υ 2	9	0	œ	σι	0 10	c 11	c 12	c 13	14	15

Seguence 4584, Ap	Sequence 270, App	Seguence 2018, Ap	GENERAL INFORMATI	H	H	578			246	1738	11234	Sequence 1424, Ap	Sequence 2, Appli	Sequence 1972, Ap	Sequence 1369, Ap	Seguence 47462, A	Sequence 8, Appli	Sequence 101, App	Seguence 886, App	Sequence 371, App	Sequence 4700, Ap	Sequence 10999, A	Sequence 1, Appli	8996	380	1200	Sequence 110, App	46	Sequence 3, Appli
US-09-960-352-4584	0 - 453	1-455-	179-1	67-514-	19-7	1-455-57	US-10-311-455-1686	1 US-10-312-841-2	0-453-24	9-814-	60-352-	US-10-311-455-1424	US-10-312-841-	US-10-311-455-1972	-198-846-13	US-10-424-599-47462	0-364	ď	80	US-10-311-455-371	4	353-1	US-10-312-84	-10-424-599-899	US-10-424-599-3380.	1-455-12	US-10-240-485-110	US-10-311-455-460	US-09-801-861-3
o,		14		14	13		14	14	14	10	σ	14	14	14	14	12	15	14	14	14	10	10	14	12	12	14	14	14	ത
416	15743	7319	158001	1691139	69113	11155	13326	3673778	6912	281	419	19787	3673778	21537	539	558	50000	1382	6621	6662	476	476	3673778	429	622	3	312	17183	53332
4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2		•			•	4.1	
σ	59.6	9.	59	o	თ	œ	8.4	8.4	8.2	7.8	7.8	7.8	7.8	7.6		57.4	7.	57.2	57	57	ý.	ŝ	Ġ,	ø	ů,	é.	56.4	56.4	56.4
16	17	18	19	20	21	22	23	24	23 33	26	27	28	29	30	31	32	33	34	33	36	37	38	39	40	41	42	43	44	45
υ			O				υ	υ		υ	υ	υ				υ				O	O	υ			υ	υ	υ		U

## ALIGNMENTS

RESULT 1 US-10-311-455-1446 Sequence 1446, Application US/10311455 Publication No. US20030143606A1 GENERAL INFORMATION: APPLICANT: OLEK, Alexander APPLICANT: DIEBENBROCK, Christian APPLICANT: DIEBENBROCK, Christian APPLICANT: PIEPENBROCK, Christian APPLICANT: PIEPENBROCK, Christian APPLICANT: PIEPENBROCK, Christian APPLICANT: PIEPENBROCK, Christian APPLICANT: VINDAMION: UNMABRE: S013.1014 TITLE OF INVENTION: CYCOSIN methylation FILE REFERENCE: 5013.1014 CURRENT APPLICATION NUMBER: PCT/EP01/07537 PRIOR FILING DATE: 2000-06-30 PRIOR FILING DATE: 2000-06-30 PRIOR FILING DATE: 2000-06-30 PRIOR FILING DATE: 2000-09-01 NUMBER OF SEQ ID NOS: 2424 SEQ ID NOS: 2424 SEQ ID NOS: 2424 CRENTH: 6106 TYPE: DNA ORGANICSM: Artificial Sequence FEATURE: FRINGRAMINEM: Artificial Sequence FEATURE: FEATURE: FRINGRAMINEM: Artificial Sequence FEATURE: FRINGRAMINEM: Artificial Sequence
Query Match 4.7%; Score 64.4; DB 14; Length 6106; Best Local Similarity 56.5%; Pred. No. 0.16; Matches 139; Conservative 0; Mismatches 106; Indels 1; Gaps 1;
Oy 1 TAAAATAATCTATAAAAAATTTGATTTTAAAATTTTAGAAATTTTATT 60 
Qy 61 TITITITACCAGAAATCCGTIAATATTGTIAAAATATTACCAACTAATTTATAAATTTTA 120

```
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                       Sequence 114, Application US/10257166
Publication No. US20040023230A1
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: OLEK, Alexander
APPLICANT: DIEFENBROCK, Christian
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Method and Nucleic Acids for Analysing the Methylation of
TITLE OF INVENTION: Genes Implicated in Pharmacogenomics
FILE REFERENCE: 5013.1011
CURRENT APPLICATION NUMBER: US/10/257,166
CURRENT FILING DATE: 2002-10-07
PRIOR APPLICATION NUMBER: PCT/EP01/07470
DE 10032529.7
DE 10032529.7
PRIOR FILING DATE: 2001-06-29
                                                                                                                                                            856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          857 TITITITITITITIATATITITITITITITITITIGAGATGAAATTAAAGAATTITITAATITITA 916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180 AGTATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGT 239
857 TITITITITATITATIATAATITITITITATIGAGAIGAAATITAAGGAATITITAATITITA 916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 TTTTAAGGCAATTAAGCATGTTT-GATAAATATATATATTGTTGTTATAATAATATACTTTTCAAA 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                       121 TTTTAAGGCAATTAAGCATGTTT-GATAAAATATATATATTGTTATAAATACTTTTCAAA
                                                                                                                     180 AGTATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGT
                                                                              797 TATTTTAAAGTTTTATTTTAGAAGTTAATTAAAAAAGGGGGTAAAAATTTTATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 TAAAATAATCTATACATTAAAAATTTGATTTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ٦;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 6106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.7%; Score 64.4; DB 16;
56.5%; Pred. No. 0.16;
tive 0; Mismatches 106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
US-10-311-455-1196
Sequence 1196, Application US/10311455
Publication No. US20030143606A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 56.5
Matches 139; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 178
LEQ ID NO 114
LENGTH: 6106
                                                                                                                                                                                                                                            1037 GAĞTAT 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .037 GAGTAT 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240 TGGTTT 245
                                                                                                                                                                                                     240 TGGTTT 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-257-166-114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000-06-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000-09-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                           d
                                                                                                                                                       Db
                                  \delta
                                                                                                                     \stackrel{>}{\circ}
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
APPLICANT: BERLIN, Kurt

TITLE OF INVENTION: Oytosine methylation
FITLE OF INVENTION: Oytosine methylation
FITLE OF INVENTION: Oytosine methylation
FITLE OF DATE: 2002-12-16
CURRENT APPLICATION NUMBER: US/10/311,455
CURRENT APPLICATION NUMBER: US/10/311,455
PRIOR APPLICATION NUMBER: PCT/EP01/07537
PRIOR APPLICATION NUMBER: DE 10032529.7
PRIOR APPLICATION NUMBER: DE 10032529.7
PRIOR APPLICATION NUMBER: DE 10043826.1
PRIOR APPLICATION NUMBER: DE 10043826.1
PRIOR APPLICATION NUMBER: DE 5000-06-30
PRIOR FILING DATE: 2000-09-01
NUMBER OF SEQ ID NOS: 2424
SEQ ID NOS: 2424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2132 AATTTTATTGTAAGGTAATTTTTTTTTTAAATTTTTAATTTTTAATGTTATATTTTATTTT 2191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2192 GTTTTAGATTATAGAAAAAGATTTAAAAGATTTTTTAAATTGTTTTATATAATGTAAAAAT 2251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 GTATAAAGTIGAIGAIGGCGIGGIGGIAGATTATTITAGTICTAGGITCGAAIGCAAGIT 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: OLEK, Alexander
APPLICANT: OLEK, Alexander
APPLICANT: DIERBERGCK, Christian
APPLICANT: PIEBREBROCK, Christian
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Diagnosis of Diseases Associated with Gene Regulation
TITLE OF INVENTION: Diagnosis of Diseases Associated with Gene Regulation
TITLE OF INVENTION: DIAGNOSIS OF 2002-09-24
PRIOR APPLICATION NUMBER: DCT/EPO1/03968
DE 1001973.8
DE 1001973.8
DE 1001973.8
DE 1001973.8
DE 10043858.7
DE 10043858.7
PRIOR FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2252 TITTATTTTTAATTTGATATATTAATAAATGAGTGATTTATGTTTTATAAATTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TAAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 64.2; DB 14;
Pred. No. 0.18;
0; Mismatches 153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 30, Application US/10239676 Publication No. US20030082609A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 50.5%;
Matches 156; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2372 AAAGATAAA 2380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 TAGGAAAAA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-239-676-30/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-311-455-1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
```

```
6700
                                                                                                                                                                                                                                    6640
                                                                                                                                                                                                                                                                                                                                                                                                            6520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  854
                                                                                                       675. ATTATAAATTACATAATTTTATAAGTTTCACTTCTTATAATAATACTCATATAATATAG
                                                                                                                                               5759 ATTATCCAAAAACAATCATTTTAATTTAATTTTTAAACACTATATATTTAATT
                                                                                                                                                                                                                                    ATGAAATGTAAAAATTTTGAGGGGACAAATAAAATATGAAAGTCTATTAAATTTT
                                                                                                                                                                                               6639 дадасатттаатдадттгсасдададасдададададтттададдададстстаддас
                                                                                                                                                                                                                                                                                                                                                                   CCATTAGAATTCTATTTCCTTAGTTAATATGAGCTAGCCAGTTGGGAGATACACGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                          915 TGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGATAGCAAGACAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160,
219,
272,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
                    Length 7195;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      159,
216,
268,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 63.2; DB 10;
Pred. No. 0.08;
0; Mismatches 75;
                    DB 14;
                  Score 63.4; DB 14;
Pred. No. 0.25;
0; Mismatches 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Lee, John
APPLICANT: Thompson, Pamela
APPLICANT: Thompson, Pamela
APPLICANT: Lillie, James
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, K
TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT,
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
FILE REFERENCE: MR.-006B
CURRENT APPLICATION NUMBER: US/09/814,353
CURRENT FILING DATE: 2001-03-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        134,
210,
248,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR FILING DATE: 2000-03-21
PRIOR PELING DATE: 2000-03-21
PRIOR FILING DATE: 2000-05-25
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-07-07
PRIOR FILING DATE: 2000-07-07
PRIOR FILING DATE: 2000-07-07
PRIOR PELING DATE: 2000-07-07
PRIOR PILING DATE: 2000-07-25
PRIOR PILING DATE: 2000-07-25
PRIOR FILING DATE: 2000-12-21
NUMBER OF SEQ ID NOS: 22037
SEQ ID NO 6389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        129,
205,
243,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 6389, Application US/09814353
Publication No. US20030165831A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.6%;
                  4.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5459 ACCCAACAAAATA 6447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                975 CCAAGCCAAGCTA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                           Similarity 50.2
37; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 98; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS-09-814-353-6389/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-814-353-6389
                                         Best Local Simi
Matches 157;
                                                                                                                                                                                                                                                                                  795
                                                                                                                                                                                                                                                                                                                                                                        852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                    Query Match
                                                                                                                                                                                             ò
                                                                                                                                                                                                                                      쉼
                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: OLEK, Alexander
APPLICANT: OLEK, Alexander
APPLICANT: OLEK, Alexander
APPLICANT: DIEPENBROCK, Christian
APPLICANT: DEFENBROCK, Christian
APPLICANT: DEFENBROCK, Christian
TITLE OF INVENTION: Diagnosis of Diseases Associated with DNA
TITLE OF INVENTION: Diagnosis of Assessing the Methylation Status of Genes Associated
TITLE OF INVENTION: By Means of Assessing the Methylation Status of Genes Associated
TITLE OF INVENTION: With DNA TRANSCRIPTION
FILE REFERENCE: 5013.1009
CURRENT PRILING DATE: 2002-10-02
PRIOR APPLICATION NUMBER: DE 10019058.8
PRIOR FILING DATE: 2001-04-06
PRIOR PPLING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: DE 10019173.8
PRIOR PPLING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: DE 10019173.8
PRIOR PPLING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: DE 10043826.1
PRIOR APPLICATION NUMBER: DE 10043826.1
PRIOR APPLING DATE: 2000-09-01
NUMBER: OF SEQ ID NOS: 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                           6519 ACTAACGAATCAAATAAATATACATATAATTTTACATAACAATATATACTATACAAAAA 6460
                                                                                                                                                                                                                                                                                                                                                                     6759 ATTATCCAAAAACAATCATTTTAATTTAATTTTTAAACACTATATATTTTAATT 6700
                                                                                                                                                                                                                                                                                                                            675 AITATAAATTACATAATTITATAAGTTTCACTTCTTATATATACTCATATATATAG 734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            855 CCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGGGAGATACACGAAAA 914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               915 TGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGATAGCAAGACAAAAAT 974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTTTAGAATGCCAATTTTTAAAAAAAAATAAAAAATAAAATAGAATAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGAAATGTAAAAATTTGAGGGGGACAAATAAAATATGAAAGTCTATTATTAAATTTT
                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; FEATURE:
; CTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
(05-10-240-453-40.
                                                                                                                                                                        ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                      Score 63.4; DB 14; Length 7195;
Pred. No. 0.25;
0; Mismatches 156; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 40, Application US/10240453
Publication No. US20030148326A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                       TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                         Query Match
Best Local Similarity 50.2%;
Matches 157; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5459 ACCCAACAAAATA 6447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       975 CCAAGCCAAGCTA 987
2000-09-01

) NUMBER OF SEQ ID NOS: 22

; SEQ ID NO 30

* "PMATH: 7195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-240-453-40/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 40
                                                                                                                                                                                                                                                                                                                                                                                                                   735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      795
                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
TIGAAACTIATTATAAATTACATAATTITAAAGTTICACTICTIATAATACTCATAT 725
                                                                                                                        785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           666 TTGAAACTTATTATAAATTACATAATTTTATAAGTTTCACTTCTTATAATAATACTCATAT 725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: LINEARAILON:
APPLICANT: LAGGO, Demela
APPLICANT: LAGGO, Pamela
APPLICANT: LAGGO, Demela
APPLICANT: LAGGO, DEMELA
APPLICANT: LAGGO, DEMELA
APPLICANT: LAGGO, DEMELA
TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER,
THE REFERENCE: MRI -006-00-12
PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR PILING DATE: 2000-05-21
PRIOR PILING DATE: 2000-05-21
PRIOR PILING DATE: 2000-05-25
PRIOR PELING DATE: 2000-05-25
PRIOR PILING DATE: 2000-05-25
PRIOR PILING DATE: 2000-07-25
PRIOR PILING DATE: 2000-07-25
PRIOR PILING DATE: 2000-07-25
PRIOR PILING DATE: 2000-07-25
PRIOR FILING DATE: 2000-07-25
PRI
                                                          200 TITAAANTITITAAAANAANNITITITAAAAAATITITINNNNNITITITAAAAAAA
                                                                                                                        159, 160, 161,
216, 219, 220,
268, 272, 277,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        786 ATCGAAAAATGAAATGTAAAATTTTGAGGGGGACAAATAAAATATGAAAGT 838
                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                            786 ATCGAAAAATGAAATGTAAAAATTTGAGGGGGGCACAAATAAAAATATGAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 63.2; DB 10; Length 318;
Pred. No. 0.08;
0; Mismatches 75; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 211,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Sequence 12666, Application US/09814353; Publication No. US20030165831A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: misc_feature

| LOCATION: 121, 123, 124, 125, 126,

| LOCATION: 225, 226, 227, 235, 241,

| LOCATION: 282, 287, 235, 241,

| LOCATION: 282, 287, 233, 302

| OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 56.6%;
Matches 98; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
US-09-814-353-12666/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 12666
999
                                                                                                                    726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                     .qq
                                                   d
                                                                                                                                                                                                                                         8
à
                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

RESULT 8

```
APPLICANT: Tao, Nengbing
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Magappan
TITLE OF INVENTION: WUSCLET ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND
TITLE OF INVENTION: WUSCLE AND FAT DEPOSITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   663 TACTTGAAACTTATTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTCA 722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           783 AAAATCGAAAAATGAAATGTAAAAATTTGAGGGGGACAAATAAAATTATGAAGTCTAT 842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GARBEAL INCRARYILOUS:

GARBEAL INCRARYILOUS:

APPLICANT: Thompson, Pamela

APPLICANT: Thompson, Pamela

APPLICANT: Thompson, Pamela

APPLICANT: Thompson, Pamela

APPLICANT: Lille, Jame

TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND

TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND

FILE REFERENCE: MRI-0668

CURRENT PILING DATE: 2001-03-21

PRIOR FILING DATE: 2000-03-21

PRIOR FILING DATE: 2000-03-21

PRIOR FILING DATE: 2000-05-25

PRIOR PLING DATE: 2000-06-15

PRIOR PLING DATE: 2000-06-15

PRIOR PLING DATE: 2000-06-15

PRIOR FILING DATE: 2000-06-15

PRIOR PLING DATE: 2000-07-22

PRIOR FILING DATE: 2000-07-22

PRIOR PLING DATE: 2000-07-22

PRIOR PLING DATE: 2000-07-22

PRIOR PLING DATE: 2000-07-22

PRIOR APPLICATION NUMBER: US 60/220,661

PRIOR APPLICATION NUMBER: US 60/257,672

PRIOR APPLICATION NUMBER: US 60/257,672

PRIOR APPLICATION NUMBER: US 60/257,672

PRIOR APPLICATION NUMBER: US 60/257,672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         603 TTGGTCTTGCTTTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTGGTGAACACGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 63.2; DB 10; Length 403;
Pred. No. 0.087;
0; Mismatches 114; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
US-09-960-352-4584
US-09-960-352-4584
Sequence 4584, Application US/09960352
Fatert No. US20020137139A1
GENERAL INFORMATION:
FAPPLICANT: Warren, Wesley C.
APPLICANT: Bayet, John C.
Sequence 17949, Application US/09814353 Publication No. US20030165831A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
LOCATION: 225
OTHER INFORMATION: n = A,T,C or
US-09-814-353-17949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 53.5%;
Matches 131; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           843 TATTT 847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          355 AATTT 359
```

В δ à

 $\delta$ g à g

 $\delta$ 쉱 ठ

```
US-10-311-455-1974/c

US-10-311-455-1974/c

Sequence 1974, Application US/10311455

Publication No. US20030143606A1

Publication No. US20030143606A1

GENERAL INFORMATION:

APPLICANT: PIPENBROCK, Christian

TITLE OF INVENTION: Diagnosis of Diseases Associated with the Immune System by Determi)

TITLE OF INVENTION: Cytosine methylation

FILE REPRENBRE: 5013.1014

CURRENT APPLICATION NUMBER: US/10/311,455

CURRENT FILING DATE: 2001-07-02

PRIOR FILING DATE: 2001-07-02

PRIOR FILING DATE: 2000-06-30

PRIOR FILING DATE: 2000-06-30

PRIOR FILING DATE: 2000-06-01

NUMBER OF SEQ ID NOS: 2424

SEQ ID NO 1974

LENGTH: 5511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2813 AACGAAATAAAAACATACTTAAA----AAAATAAAAAACACAATATAAATATTTTAACTA 2757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2756 TTAAAAAATACTTATTTATATTCTTAAATATAACATAACAATTTTATATTTTATACAA 2697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     854 TCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGGGAGATACACGAAA 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        973
                           798
                                                                                                            858
                                                                   7
                                                                                                                                                      37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          914 ATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGATAGCAAGACAAAAA
                                                                                                            799 AATGTAAAAATTTGAGGGGGCACAAATAAAATATGAAAGTCTATTATTAAATTTTCCAT
                                                                                                                                                        2873 AATAATAAATACAAATTTTAAACAATAAAACATTAAAATAAAATACAATTCTATTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATGAAATGTAAAAAATTTTGAGGGGGACAAATAAAAATATGAAAGTCTATTATTTAAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2696 ATTCCTTTAAATATTTTAAAAAAAAAAATAATTTTTATACATAAAATCAATAAATACA
                           674 TATTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTCATATAATATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 5511;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; DB 14;
0.54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 61.2;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8636 ATATACCCTATITA 2623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              974 TCCAAGCCAAGCTA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 51.9
Matches 163; Conservative
                                                                                                                                                                                                  859 TAGAATICTAT 869
                                                                                                                                                                                                                                            36 AAAAATTTAT 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
US-09-814-353-19050/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-311-455-1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                            ò
                                                                                                                                                      g
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
105-09-360-352-15014/c
105-09-360-352-15014 Application US/09960352

Sequence 15014 Application US/09960352

Patent No. US20020137139A1

GENERAL INFORMATION:
APPLICANT: Warren, Wesley C.
APPLICANT: Mathial angley C.
APPLICANT: Mathial angle C.
TITLE OF INVENTION: WUCLEC ACLD AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND FILE REPERENCE: 16511.006/37-21(10298)C
CURRENT APPLICANTON NUMBER: US/09/960,352

LENGTH: 375
                                                                                                                                                                                                                                                                                                                                  603 TIGGICTIGCTTTIGCGFCTTTTGTTCAATTTTTCACGIGATTTTGTTGGTGAACACGCG 662
                                                                                                                                                                                                                                                                                                                                                                                                                          722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         783 AAAATCGAAAAATGAAATGTAAAAATTTGAGGGGGACAAATAAAATA----TGAAAGT 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      839 CTATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTT 898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   619 GTCTTTTGTTCAATTTTTCACGTGATTTTTGTTGGTGAACACGCGTACTTGAAACTTATTA
                                                                                                                                                                                                                                            Length 416;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 375;
                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                 TYPE: DNA OSANISM: BOS taurus OTHER INDORMATION: CLONE ID: 20-LIB3057-016-Q1-K1-E11 US-09-960-352-4584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA OGANISM: BOS taurus OTHER INFORMATION: Clone ID: 64-LIB3058-048-Q1-K1-H8 US-09-960-352-15014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.6%; Score 62.2; DB 9;
53.0%; Pred. No. 0.13;
iive 0; Mismatches 118;
                                                                                                                                                                                                                                            Score 63.2; DB 9;
Pred. No. 0.088;
0; Mismatches 153;
FILE REFERENCE: 16511.006/37-21(10298)C
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 15112
SEGO ID NO 4584
LENGTH: 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     305 AAGATATAAAAAAAGATTTATTAAAA 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              899 GGGAGATACACGAAAATGTCATGAAA 924
                                                                                                                                                                                                                                              4.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 53.0
33; Conservative
                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 169; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             723
                                                                                                                                                                                                                                                                                                                                                                                                                          663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local
Matches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
```

0

Gaps

; 0

7631;

```
4261 ATAATAAGGTTTTATTTTGTATTATTTTTAAAAGAGATTAATTTAATTTTGATAGGT 4320
                                                                                                                                                                                                                                                                                                                                                                                 131 ATTAAGCATGTTTGATAAAATATATATATTGTTATAAATACTTTTCA--AAAGTATAAAG 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: OLEK, ALexander
APPLICANT: OLEK, ALexander
APPLICANT: PIEPENBROCK, Christian
APPLICANT: BERLIN, Kurt.
TITLE OF INVENTION: Diagnosis of Diseases Associated with Cell Cycle
FILE REFERENCE: 5013.1004
CURRENT FILING DATE: 2002-09-13
CURRENT FILING DATE: 2002-09-13
PRIOR APPLICATION NUMBER: PCT/EP01/02945
DE 100193847.00
DE 10019173.8
DE 100192259.7
DE 10032259.7
DE 10043826.1
PRIOR FILING DATE: 2001-03-15
2000-04-06
2000-04-06
2000-04-06
                                                                                                                                                                                                                     655 AACACGCGTACTTGAAACTTATTATAAATTACATAATTTTATAAGTTTCACTTCTTATAT
                                                                                                                                                                                                                                                                                                                             715 AATACTCATATATATATAGGGTTTAGAATGCCAATTTTTAAAAAAAGAATAAAAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71 AGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTTAAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        189 ITGATGATGGCGTGGTGGTGGATTATTTTAGTTCTAGGTTCGAATGCAAGTTGGTTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1201 TATTTTAATTTTTGGATATATAAGTTAAAAATTATTAAAGGTATAAAGGAAAGTTTTAAA
FEATURE: OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-221-613-227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11 TATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 6487;
                                                                                                          Length
                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6549 AAATTCTAAACTCTAAAACAAAAAAAAAAAAAAAACTT 6512
                                                                                                                                                                                                                                                                                                                                                                                                                                     775 AATAGAATAAAATCGAAAAAATGAAATGTAAAAATTT 812
                                                                                                       Score 60.4; DB 14;
Pred. No. 0.85;
0; Mismatches 61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.4%; Score 60.2; DB 12;
50.7%; Pred. No. 0.87;
live 0; Mismatches 163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 227, Application US/10221613
Publication No. US20040029123A1
GENERAL INFORMATION:
                                                                                                       4.4%;
ilarity 61.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 50.7
Matches 170, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000-09-01
NUMBER OF SEQ ID NOS: 428
SEQ ID NO 227
                                                                                                          Query Match
Best Local Similarity
Matches 97; Conserv
                                                 ÚS-10-311-455-833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -10-221-613-227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                 Dp
                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 833, Application US/10311455

publication No. US2000143606A1

GENERAL INCRMATION:

APPLICANT:

APPLICANT:

PIEENBROCK, Christian

APPLICANT:

PIEENBROCK, Christian

APPLICANT:

PIEENBROCK, Christian

APPLICANT:

PIEENBROCK, Christian

APPLICANT:

APPLICANT:

APPLICANT:

PIEENBROCK, Christian

APPLICANT:

PRIOR APPLICATION NUMBER: US/10/311,455

CURRENT FILING DATE: 2000-107-02

PRIOR FILING DATE: 2000-05-30

PRIOR PILING DATE: 2000-05-30

PRIOR FILING DATE: 2000-09-01

PRIOR FILING DATE: 2000-09-01

PRIOR FILING DATE: 2000-09-01

PRIOR FILING DATE: 2000-09-01

NUMBER:

PRIOR FILING DATE: 2000-09-01

NUMBER:

PRIOR FILING DATE: 2000-09-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            666 ITGAAACITATAAATTACATAATTITATAAGITICACTICITATAATACICATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                               APPLICANT: Lillië, James
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION, AND
TITLE OF INVENTION: THERAPY OF OVARIAN CANCER
FILE REPERENCE: MRI-006B
CURRENT APPLICATION NUMBER: US/09/814,353
CURRENT FILING DATE: 2001-03-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           786 ATCGAAAAATGAAATGTAAAAATTTGAGGGGACAAATAAAATATGAAAGT 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            148 арададарарарадададададатСададададададададададададад 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 61; DB 10; Length 385;
Pred. No. 0.21;
0; Mismatches 70; Indels
                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR APPLICATION NUMBER: US 60/191,031
PRIOR PILING DATE: 2000-03-21
PRIOR PELICATION NUMBER: US 60/207,124
PRIOR FILING DATE: 2000-05-25
PRIOR PELING DATE: 2000-06-15
PRIOR PELING DATE: 2000-06-15
PRIOR PLING DATE: 2000-06-15
PRIOR PLING DATE: 2000-07-07
PRIOR PLING DATE: 2000-07-07
PRIOR PLING DATE: 2000-07-25
PRIOR PLING DATE: 2000-07-21
Sequence 19050, Application US/09814353
Publication No. US20030165831A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Artificial Sequence
                                                                             APPLICANT: Lee, John
APPLICANT: Thompson, Pamela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 59.5
Matches 103; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens
US-09-814-353-19050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-10-311-455-833/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ID NO 19050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
```

```
RESULT 15
US-10-311-455-1594

i Sequence 1594, Application US/10311455

i Publication No. US20030143606A1

i GENERAL INFORMATION:

APPLICANT: OLEK, Alexander

APPLICANT: PIEPRNBROCK, Christian

APPLICANT: BERLIN, Kurt

ITILE OF INVENTION: Diagnosis of Diseases Associated with the Immune System by Determ

ITILE OF INVENTION: Outcome methylation

FILE REPERENCE: 5013.1014

CURRENT FILING DATE: 2002-12-16

PRIOR FILING DATE: 2001-07-02

PRIOR APPLICATION NUMBER: PCT/PEPU/07537

PRIOR APPLICATION NUMBER: PCT/EPU/07537

PRIOR APPLICATION NUMBER: DE 10032529.7

PRIOR APPLICATION NUMBER: DE 10043826.1

PRIOR PELING DATE: 2000-06-30

PRIOR FILING DATE: 2000-09-01

WUMBER OF SEQ ID NOS: 2424

SEQ ID NO 1594

LENGTH: 6254
                                                    4321 GTTTTTTAATAATGGGTGTTTTTGTTTTAATAAATAGGTAAATGCGTGGAGTGTATAACGG 4380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2761 дадспадататтттгс-гаттатадапатататататттадаттададатдатдат 2819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2820 Triggagrgagraritarirgrarahahaharrhrrrrrrrrrrrgrargagangriha 2879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2880 TIAGGIAAAATIATGIATTATGAAAGTGTTTTAAAATGTAATAGGAGGAGATGTGAAGAT 2939
249 CATTTAGCCTTATTCTTAACCAAAATAAATGAAATGGAAAACCTTTAGGAAAA 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69 CCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTTATAAATTTTTAAGG 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     129 CAATTAAGCATGTTTGATAAAATATATATTGTTATAAAATACTTTTCAAAAGTATAAAG 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 189 INGALGANGGCGNGGNGGNGANTANTINA-GINCIAGGINCGAANGCAAGINGGINIAG 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         248 ACATTTAGCCTTATTCTTTTTCTAACCAAATTAATGTAAATGGAAAACCTTTAGGAAA 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9 TCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTTTTTTA 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-311-455-1594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4.4%; Score 60; DB 14; Length 6254; 53.9%; Pred. No. 0.93; Live 0; Mismatches 140; Indels
                                                                                                                                                            4381 AATAGTATTAGTAAGACGAAATATATAAAATAGGA 4415
                                                                                                        309 AAAAGAAATCAAAATTGAAAACATCATCCGGTGGA 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: February 24, 2004, 13:09:15
Job time : 614.765 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 53.9
Matches 166; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2940 ATAAAGAA 2947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        308 AAAAAGAA 315
                                                                                                                                           D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ે
                                              g
                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
```

ST AVAILABLE COPY

Sequence Sequence Sequence Sequence Sequence Sequence

Sequence

9596, Ap 1, Appli 1, Appli

Sequence Seguence Sequence Sequence Sequence

Sequence

Sequence

Sequence

Total number Minimum DB Maximum DB

Searched:

Sequence:

Database :

Result

us-09-743-823-21.rni

OM nucleic

Run on:

```
Sequence 3; Application US/08213419B
Factoric No. 6333406
GENERAL INFORMATION:
TITLE OF INVENTION: GENE ENCODING PROTEIN ANTIGENS OF PLASMODIUM FALCIPARUM TITLE OF INVENTION: ADD USES THEREFOR FILE SERRENCE: JII -002CNCP: CURRENT APPLICATION NUMBER: US/08/213,419B
CURRENT PILING DATE: 1994-03-14
PRIOR APPLICATION NUMBER: US 07/870,506
PRIOR FILING DATE: 1992-04-17
NUMBER OF SEQ ID NOS: 20
SOOTHWARE: PATENTIN VEY: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                782 ATATTAAATAAAAGAATTACATAATATAGTTTTAACTAAGAACTAGTTTAATTCATAT 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              675 ATTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTCATATAATAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   795 ATGAAATGTAAAAATTTGAGGGGACAAATAAAATATGAAAGTCTATTATTTAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        662 ATAAATAAGAAAACATACTATAAAATTTTCAATATGATTATTCATTATTATATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 59; DB 4; Length 6124;
Pred. No. 0.0043;
0; Mismatches 85; Indels
             US-10-204-708-42
US-08-487-86-13
US-08-487-86-13
US-10-204-708-3
US-10-204-708-6
US-09-732-463-14
US-09-739-988-1
US-09-621-976-9596
US-09-621-976-9596
US-07-0892-00018-1
US-10-204-708-44
US-10-204-708-44
                                                                                                                                                                                                                                           US-09-247-373B-33
US-09-489-847-64
US-10-204-708-9
US-10-204-708-55
                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Plasmodium falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             855 CCATTAGAATTCTAT 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rcaraaaarrrrar 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 56.4%;
Matches 110; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | LCCATION: (2407) ... (2439) | NAME/KEY: CDS | LCCATION: (2598) ... (3404) | NAME/KEY: CDS | LCCATION: (3580) ... (3720) | NAME/KEY: CDS | LCCATION: (3580) ... (3720) | NAME/KEY: CDS | LCCATION: (3850) ... (5835) | US-08-213-419B-3
.......
                                                                                                                                                                                                                                                                                                                                                                                                                          JS-08-213-419B-3/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Pate
SEQ ID NO 3
LENGTH: 6124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
NAME/KEY: CDS
                                                                                    50.4
50.4
50.4
50.3
50.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ПЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                535, App
651, App
149, Appl
11, Appli
11, Appli
195, App
191, App
191, App
701, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3, Appli
3, Appli
3, Appli
1, Appli
2, Appli
186, App
1137, Ap
218, App
41, Appli
3, Appli
3, Appli
                                                                                                                     ; Search time 134.614 Seconds
(without alignments)
5635.487 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2
Sequence 1
Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence (Sequence (Sequence (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued Patents_NA:*

(Ggn2_6/ptodata/2/ina/5A_COMB.seq:*
(Ggn2_6/ptodata/2/ina/5B_COMB.seq:*
(Ggn2_6/ptodata/2/ina/6A_COMB.seq:*
(Ggn2_6/ptodata/2/ina/6B_COMB.seq:*
(Ggn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
(Ggn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
                    GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-998-416-185
US-08-998-416-191
US-08-998-416-937
US-08-998-416-786
US-08-998-416-786
US-08-998-416-472
US-08-998-416-472
US-08-998-416-472
US-08-998-416-472
US-08-998-416-338
US-08-998-416-338
US-08-998-416-538
US-08-998-416-538
US-08-998-416-538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-363-708-3

US-09-083-587-3

US-09-083-587-3

US-08-998-416-1137

US-08-998-416-1137

US-08-998-416-1137

US-08-998-416-1137

US-08-998-416-1137

US-08-998-416-128

US-09-641-638-651

US-09-641-638-651

US-09-641-638-651

US-08-998-416-191

US-08-998-416-191

US-08-998-416-191

US-08-998-416-191

US-08-998-416-191

US-08-998-416-191

US-08-998-416-706

US-08-998-416-706

US-08-998-416-706

US-08-998-416-706

US-08-998-416-706

US-08-998-416-706

US-08-998-416-706

US-08-998-416-706

US-08-998-416-706
                                                                                                                                                                                                                                                                                                                                                       of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                    682709 seqs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                         February 24, 2004, 07:40:35
                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                     using sw model
                                                                                                                                                                                                                                                                 IDENTITY NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                         length: 0
length: 2000000000
                                                                                                                                                                                          US-09-743-823-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64020

64
                                                                                       nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         នed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
```

ö

Gaps

·,

663

```
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: li
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
US-09-083-587-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX:
                                                                                                                                                                                                                                                                         US-09-363-708-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: YAN, Chunhua et al.
APPLICANT: YAN, Chunhua et al.
APPLICANT: YAN, Chunhua et al.
TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES
TITLE OF INVENTION: THEREOF
FILE REPERBACE: CLOO1008
CURRENT FILLING DATE: 2001-03-09
NUMBER OF SEQ ID NOS: 10
SOFTWARE: FASTSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 TTTTAAGGCAATTAAGCATGTTTGATAAATATATATATTTTTTTAAATACTTTTCAAAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 GGTTTAGACATTTAGCCTTATTCTTTTTTCTAACCAAAATGAAATGGAAAACCTT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 TTTTTTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTAAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 GTATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TAAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                          Length 53332;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3: Marshall, O'Toole, Gerstein, Murray & Borun 233 South Wacker Drive/6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/363,708
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches 166;
                                                                                                                                                                                                                                                                                                                                                                          4.1%; Score 56.4; DB 4;
18.4%; Pred. No. 0.02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Schmandt, et al.
TITLE OF INVENTION: NOVEL SHC BINDING PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31341 TATAAATATAAATATATAAA 31320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: Illinois
COUNTRY: United States of America
ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 TAGGAAAAAAAAAAA322
Sequence 3, Application US/09801861
Patent No. 6492154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 3, Application US/09363708 Patent No. 6399747
                                                                                                                                                                                                                                                                                                                                                                                              48.48;
                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 48.4
Matches 156, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 1. CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 233 Sc
CITY: Chicago
                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                       LENGTH: 53332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                     US-09-801-861-3
                                                                                                                                                                                                                                                      SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
```

```
2049 GTATTTTGAACATGTCTTAAGTATGCTGCTTATATATACTTTGCTTCATTTGCTTCATGGCT 2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         662 GTACTTGAAACTTATTATAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTC 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        782 TAAAATCGAAAAATGAAATGTAAAAATTTTGAGGGGGACAAATAAAATATGAAA 836
                                                                                                                                                                                                                                                                                                                                                                      Length 2246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3, Application US/09083587
Patent No. 6492138
GENERAL INFORMATION:
APPLICANT: Schmandt, et al.
TITLE OF INVENTION: NOVEL SHC BINDING PROTEIN
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: 233 South Wacker Drive/6300 Sears Tower
                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Chicago
STATE: 111nois
COUNTRY: United States of America
ZIP: 6060-6402
COMPUTER READABLE FORM:
WEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/083,587
                                                                                                                                                                                                                                                                                                                                                                                . 0.022;
                                                                                                                                                                                                                                                                                                                                                                   4.0%; Score 55; DB 4;
'57.1%; Pred. No. 0.022;
tive 0; Mismatches 7
                                                                                                                                                                                                                                                                             MOLECULE TYPE: cDNA
DESCRIPTION: /desc = "mouse PAL cDNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
                 REGISTRATION NUMBER: 36,107
REPERBUCE/DOCKST UNMBER: 01
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      36,107
                                                                                                            TELEFAX: (312) 474-0448
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                               LENGTH: 2246 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2246 base pairs
                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 57.1
Matches 100; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       inear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDALL ZOURSTREET: ZOURSTREET: ZOURSTREET
```

us-09-743-823-21.rni

537

```
352817 TTTATAATAATAATTAAGTCTATAAATTCTGTTAATTGATAATTTTTTATAACA--TATC 352760
                                                                                                                                                                                                                                                                                                                                                                                                                352997 TAATTGAACTAAGTÄTCACTTATAGTGCATATTAAACÄGTTTTAACATATTTACTAT 352938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      352877 TAGGCACTATTTTTTTTTATATÀTATAAAGTÄTGTATTAAGAATAACTÄTTGAGTATAGATT 352818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       352759 CCAGTATTTTCAAATATTTTGTTGTTAACTAACGTGGAACAAAGAATAATAAATTGAAAA 352700
       778 AGAATAAAATCGAAAAATGTAAAAATTTTGAGGGGGACAAATAAAAATATGAAAG
                                                                                                                                                                                                               478 GTTATATCCAACGGTCCTAAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCA
                                                                                                                                                                                                                                                                         CCCTGAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        598 GCTACTTGGTCTTGCTTTTTGGCGTCTTTTGTTCAATTTTTCACGTGATTTTTGTTGGTGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        658 ACGCGTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTATAAAT
                                                                            TIAITCAATACTITITCCACTICTAAAATCTIGGAGATTIGCACCGTTAACTAATTAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 19
NUMBER OF SEQUENCES: 19
ADDRESSEE: Woodcock Washburn Kurtz Mackiewicz & No. 5389526ris
STREET: One Liberty Place 46th Floor
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             352699 icaaiaciaingriiriiriaaaaaarairaariirirariiriaaaar 352652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTATTATTTAAATTTCCATTAGAATTCTATTTTCCTTAGTTAATAT 885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Slade, Martin B
APPLICANT: Chang, Andy C M
APPLICANT: Williams, Keith L
TITLE OF INVENTION: Improved Plasmid Vectors for Cellular
TITLE OF INVENTION: Slime Moulds of the Genus Dictyostelium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMFUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/867,106

FILING DATE: 19920625

PRODE APPLICATION NUMBER: AU PJ 7187

APPLICATION NUMBER: AU PJ 7187

APPLICATION NUMBER: PCT/AU90/00530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/07867106
Patent No. 5389526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Feeney, Joanne Longo
REGISTRATION NUMBER: 35,134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: R TELECOMUNICATION TELEPHONE: 215-568-3100 TELEPHONE: 215-568-3439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 02-NOV-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 215-568-3439
INFORMATION FOR SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-07-867-106-2/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               838
                                                                                                                                                                                                                                                                                                                                                     538
                                                                            418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
                                                                                                                                          요
                                                                                                                                                                                                           \stackrel{>}{\sim}
                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             쉼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               353237 Ticiggiatriaticraaaigataaacaaaaacgcraatatiatatiadataatratag 353178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            353537 TTAAGTAATATCAATTTTAAGTAATATTTAAAAATTATATGTATTTCTAAAAATAGATA 353478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            353357 GAAATATTTTTCGTATGTATCATATTTTTTAAAGGTATTCTATTTAAAAAATATATGATA 353298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      353358
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                     2049 GTATTTTGAACATGTCTTAAGTATGCTGCTTATATATACTTTGCTTCATTTGCTTCATGGCT 2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 TTTTTTTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTA---ATTTATAAATT 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           417
                                                                                                                                                                                                                                                   662 GTACTTGAAACTTATTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTC 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               353477 AATTTTTTTTTATAAATCTTTTTTTTTTTTAAAACTAACAAATAGGTATGAATAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    178 AAAGTATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITIAGGAAAAAAAAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           358 ACCCACGTGACCCAACAATATTAAAATATAGAGTTTGCTCTACAGTAAATGCGATACTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 54.8; DB 4; Length 640681;
Pred. No. 0.061;
0; Mismatches 502; Indels 5;
                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: WATANABE, HIDEMIA
APPLICANT: WATANABE, HIDEMIA
APPLICANT: HATTORI, MASAHIRA
APPLICANT: HATTORI, MASAHIRA
APPLICANT: SARAKI, YOSHIYUKI
TITLE OF INVENTION GENOME DNA OF BACTERIAL SYMBIONT OF APHIDS
FILE REFERENCE: 081356/0159
FILE REFERENCE: 081356/0159
FILE REFERENCE: 2001-02-23
PRIOR APPLICATION NUMBER: JP2000-107160
PRIOR FILING DATE: 2000-04-07
SOFTWARE: PALENTING OF SECTION OF SE
                                                                                                         Length 2246;
                                                                                                         Query Match 4.0%; Score 55; DB 4; Length 224 Best Local Similarity 57.1%; Pred. No. 0.022; Matches 100; Conservative 0; Mismatches 75; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAAAATTAATACATTAAAAAATTTGATTTTAAAATT
       /desc = "mouse PAL cDNA'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/09790988
Patent No. 6532935
GENERAL INFORMATION:
APPLICANT: SHIGENOBU, SHUJI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 42.9%;
Matches 381; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Buchnera sp.
US-09-790-988-1
; DESCRIPTION:
US-09-083-587-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 1
LENGTH: 640681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-790-988-1/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
```

```
FILING DATE: 24
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-998-416-1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: 1
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       683 TTACATAATTTTATAAGTTTCACTTCTTATA-TAATACTCATATATATATAGGGTTTAG 741
                                                                                                                                                                                                                                                                                                                                                                                                               5713 TTACTTATATTTCTATTTTTTTTTATAAAATTAAAATTAAAATTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      742 AATGCCAATTTTTAAAAAAGAATAAAAATAAATAGAATAGAATCGAAAAAATGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 802 GTAAAAATTTGAGGGGACAAATAAAATATGAAAGTCTATTATTTAAATTTTCCATTAG
                                                                                                                                                                                                                                                                                                                                    ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Philippsen, Peter
APPLICANT: Pohlmann, Rainer
APPLICANT: Steiner, Sabine
APPLICANT: Steiner, Sabine
APPLICANT: Worl, Christine
APPLICANT: Wendland, Jurgen
APPLICANT: Rebischung, Corlinne
APPLICANT: Rebischung, Corlinne
APPLICANT: Rebischung, Corlinne
APPLICANT: ALBOROWIC DNA SEQUENCES OF ASHBYA GOSSYPII
TITLE OF INVENTION: AND USES THEREOF
NUMBER OF SEQUENCES: 1152
                                                                                                                                                                                                                                                                                            Score 54.2; DB 1; Length 5 Pred. No. 0.038; 0; Mismatches 78; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRI:

COUNTRI:

27709
COMPUTER READABLE FORM:
MEDIUW TYPE: Floppy disk
COMPUTER: IBM PC Compatible
COMPUTER: IBM PC Compatible
COMPUTER: DA PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/998,416
TLING DATE: 24-DEC-1997
TLING DATE: 24-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEE: No. 6239264artis Corporation

1: 3054 Cornwallis Road

Research Triangle Park

No. 6239264th Carolina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 186, Application US/08998416
Patent No. 6239264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: CH 0016/97
FILING DATE: 31-DEC-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
                                                                                               DNA (genomic)
                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 58.6%;
Matches 112; Conservative
                  : 5852 base pairs
NUCLEIC ACID
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5533 ATTTTATTT 5523
SEQUENCE CHARACTERISTICS:
LENGTH: 5852 base pair
                                                                                                                                                                                                                CDS
2378..5038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              862 AATTCTATTT 872
                                                                                                                                                       CDS
2378..5038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDÊNCE ADDRESS:
                                                                               linear
                                     TYPE: NUCLEIC STRANDEDNESS:
                                                                                             MOLECULE TYPE:
ANTI-SENSE: NO
                                                                                                                                                     NAME/KEY:
LOCATION:
                                                                                                                                                                                                             STREET:
                                                                                                                                                                                               FEATURE:
```

```
65 TTTACCAGAAATCCGTTAAT--ATTGTTAAAATATTACCAACTAATTTATAAATTTTATT 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           86 ATTATCATTATTAATTAATTAATTATTTGATTATTAATACTTATTATAATTATTATA 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              123 TTAAGGCAATTAAGCATGTTTGATAAAATATATATATTGTTGTTATAAAAATACTTTTCAAAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 ATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26 ATAAAGATTAATATAAACTTTTTTTTTTATAATATTTAAGTATTAAATTATTAAACTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Philippsen, Peter
APPLICANT: Pohlmann, Rainer
APPLICANT: Steiner, Sabine
APPLICANT: Steiner, Sabine
APPLICANT: Moth, Christine
APPLICANT: Mochile, Jurgen
APPLICANT: Rechtle, Philipp
APPLICANT: Rebischung, Corinne
TITLE OF INVENTION: GENOMIC DNA SEQUENCES OF ASHBYA GOSSYPII
TITLE OF INVENTION: AND USES THEREOF
CORRESPONDENCE: 1152
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                    Length 615;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                 Score 53.6; DB 3;
Pred. No. 0.034;
0; Mismatches 69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: PF/5-30306/A/CGC1976
FELECOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8587
REFERENCE/DOCKET NUMBER: PF/5-30306/A/CGC1976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEE: No. 6239264artis Corporation
: 3054 Cornwallis Road
Research Triangle Park
No. 6239264th Carolina
Y: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/998,416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seguence 1137, Application US/08998416
Patent No. 6239264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:

APPLICATION NUMBER: CH 0016/97

FILING DATE: 31-DEC-1996

ATTORNEY/AGENT INFORMATION:
                   TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8687
TELEFAX: 919-541-8689
INFORMATION FOR SEQ ID NO: 186: SEQUENCE CHARACTERISTICS:
LENGTH: 615 base pairs
TYPE: mucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
                                                                                                                                                                                                                            TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                    3.9%;
60.1%;
                                                                                                                                                                                                                                                                                                                                                                                    Query Match 3.99
Best Local Similarity 60.13
Matches 107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                               ) ORIGINAL SOURCE:
; ORGANISM: PAG1074RP
US-08-998-416-186
```

```
Score 53.6; D
Pred. No. 0.03
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT FILING DATE: 2003-05-06
PRIOR APPLICATION NUMBER: PCT/EP01/03971
PRIOR FILING DATE: 2001-04-06
PRIOR FILING DATE: 2000-04-06
PRIOR FILING DATE: 2000-04-06
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: DE 10019173.8
PRIOR APPLICATION NUMBER: DE 1003529.7
PRIOR APPLICATION NUMBER: DE 10043826.1
PRIOR FILING DATE: 2000-06-30
PRIOR FILING DATE: 2000-09-01
NUMBER OF SEQ ID NOS: 98
LENGTH: 8537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 41, Application US/10204708
Patent No. 6677731
STRANDEDNESS: single
TOPOLGGY: linear
MOLECULE TYPE: DNA (genomic)
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                         Query Match 3.9%;
Best Local Similarity 60.1%;
Matches 107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                PAG1241RP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 111; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
US-10-204-708-41/c
                                                                                                    US-08-998-416-288
                                                                                ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                           65 ITTACCAGAAATCCGTTAAT--ATTGTTAAAATATTACCAACTAATTTATAAATTTTATT 122
                                                                                                                                                                                                                                                                                                                                                                                                                                  26 АТАААСАТТААТАТАААСТТТТТТАТТАТАТАТАТТТААСТАТТААТТТТААТТТТАААСТАТТ 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            123 ITAAGGCAATTAAGCATGTTTGATAAATATATATATTGTTATAAATACTTTTCAAAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5 ATAATCTATACATTAAAAATTTTGATTTTAAAATTTTAGAAATTCATGATTTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCES OF ASHBYA GOSSYPII
                                                                                                                                                                                                                          Score 53.6; DB 3; Length 636;
Pred. No. 0.035;
0; Mismatches 69; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: USA
ZIP: 27709
COMPUTER READABLE FORM:
MEDLUM TYPE: Flopyy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: DATE: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/998,416
FILING DATE: 24-DEC-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: CH 0016/97
FILING DATE: 31-DEC-1996
ATTORNEY/AGENT INFORMATION:
NAME: Meigs, J. Timothy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PF/5-30306/A/CGC1976
                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SSEE: No. 6239264artis Corporation

1: 3054 Cornwallis Road

Research Triangle Park

No. 6239264th Carolina

XY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Rebischung, Corinne
TITLE OF INVENTION: GENOMIC DNA SEC
TITLE OF INVENTION: AND USES THEREC
NUMBER OF SEQUENCES: 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 288, Application US/08998416
Patent No. 6239264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/
FELECOMMINICATION:
TELECOMMINICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Philippsen, Peter
Pohlmann, Rainer
Steiner, Sabine
Mohr, Christine
Wendland, Jurgen
Knechtle, Philipp
                                                                                                                     DNA (genomic)
                                                                                                                                                                                                                          Query Match
Best Local Similarity 60.1%;
Matches 107; Conservative
               SEQUENCE CHARACTERISTICS:

IENGTH: 636 base pairs

TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic
ORIGINAL SOURCE:
CORGANISM: PAGL692RP
US-08-998-416-1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 837 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919-541-8689
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 62392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JS-08-998-416-288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORM
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   146
                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                         \stackrel{>}{\circ}
```

```
903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    846
                                                                                                                                                                                                       TTTACCAGAAATCCGTTAAT--ATTGTTAAAATATTACCAACTAATTTATAAATTTTATT 122
                                                                                                                                                   26 ATAAAGATTAATATAAACTTTTTTTTTTAATATTTAAGTATTAAATTATTTAAACTATT 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: OLEK, Alexander
APPLICANT: PIEPENBROCK, Christian
APPLICANT: PIEPENBROCK, Christian
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Diagnosis of Diseases Associated with DNA Replication
TITLE OF INVENTION: by Assessing DNA Methylation
FILE REFERENCE: 5013.1012
CURRENT APPLICATION NUMBER: US/10/204,708
CURRENT FILING DATE: 2003-05-06
                                                                                                                                                                                                                                                                                                            123 TTAAGGCAATTAAGCATGTTTGATAAAATATATATTGTTATAAATACTTTTCAAAA 180
                                                                                                                                                                                                                                                                                                                                                             787 TCGAAAAATGTAAAAATTTGAGGGGGACAAATAAAATATGAAGTCTATTATT
                                                                                                     5 ATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               902 Arccraaracarraaaaaacraaaaraaaaaaccarrraaaaccaaaaarraaaacra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-204-708-41
                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 8537;
DB 3; Length 837;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3.9%; Score 53.4; DB 4; Length 8 53.6%; Pred. No. 0.058; trive 0; Mismatches 96; Indels
                                              Indels
  0.036;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347 TAAATTTTCCATTAGAATTCTATTTTC 873
```

```
MOLECULE TYPE: I
ORIGINAL SOURCE:
ORGANISM: PAGI
US-08-998-416-535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-641-638-651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
CITY: Re
STATE: N
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                             APPLICANT: Inselburg, J. et al.

TITLE OF INVENTION: GENE ENCODING PROTEIN ANTIGENS OF PLASMODIUM FALCIPARUM TITLE OF INVENTION: AND USES THEREFOR FILE REFERENCE: JIL-002CMVP CURRENT APPLICATION NUMBER: US/08/213,419B
CURRENT APPLICATION NUMBER: US/08/213,419B
PRIOR APPLICATION NUMBER: US/08/213,439
PRIOR FILING DATE: 1994-03-14
MANAGER OF FILING DATE: 1992-04-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   770 AAATAAATAGAATAAAATCGAAAAAATGAAATGTAAAAATTTGAGGGGACAAATAAAA 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                830 TATGAAAGTCTATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGC 889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  710 TATATAATACTCATATATATATAGGGGTTTAGAATGCCAATTTTTAAAAAAGAATAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Rebischung, Corinne
TITLE OF INVENTION: GENOMIC DNA SEQUENCES OF ASHBYA GOSSYPII
TITLE OF INVENTION: AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; DB 4; Length 6124; 0.079;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches 109; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1: No. 6239264artis Corporation 3054 Cornwallis Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 52.6;
Pred. No. 0.
782 TATATTTTATATTAAAATCTC 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 535, Application US/08998416
Patent No. 6239264
                                                                                                        Sequence 3, Application US/08213419B Patent No. 6333406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Philippsen, Peter
Pohlmann, Rainer
Steiner, Sabine
Mohr, Christine
Wendland, Jurgen
Knechtle, Philipp
                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Plasmodium falciparum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3.8%;
                                                                                                                                                                                                                                                                                                                               Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 118; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (2598) .. (3404)
CDS
(3580) .. (3720)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ) NAME/KEY: CDS
) LOCATION: (3850)..(5835)
US-08-213-419B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (2407) .. (2439)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS ADDRESSE: No. 62393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS:
SOFTWARE: PatentIn Ve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
US-08-998-416-535
                                                                                                                                                                                                                                                                                                                                                                   6124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
```

```
144 GATAAAATATATATATGTTATAAATACTTTTCAAAAGTATAAAGTTGATGATGGCGTGG 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     314 TTATTAATAAATAGATTATTAAGTTTAATAATAATAAGTGATATAAATTTAATTTAATTTATAT 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             204 IGGIAGAITATITIAGITCTAGGITCGAAIGCAAGTIGGITTAGACAITTAGCCTTATIC 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   374 AAATTATTTAATTTACTTCATTGATATATAATTAATTAAATGTACCTTTCATAATATT 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84 TATIGITAAAATATTACCAACTAATITATAAATTITATATAAGGCAATTAAGCCATGITT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 827;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           264 TITITICIAACCAAAATAAATGTAAATGGAAAA 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 434 ATTTTTATTAGTCTAGTAATATTCTATTTAATA 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0.068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 52.2;
Pred. No. 0.
                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: BATENTIN Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/998,416
FILING DATE: 24-DEC-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: CH 0016/97
FILING DATE: 31-DEC-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 651, Application US/09641638 Patent No. 6432648
Research Triangle Park
No. 6239264th Carolina
!: USA
                                                                                                                                                                                                                                                                                                                                    NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF,
TELECOMMUNICATION: TELEPHONE: 919-541-8587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 919-541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . 827 base pairs
nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 49.5
Matches 135, Conservative
                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAG1373RP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
```

```
OCATION: 1559
OTHER INFORMATION: 10-509-284 : polymorphic base C or T
NAME/KEY: allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : polymorphic base C or T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : polymorphic base C or T
PRIOR APPLICATION NUMBER: US 09/502,330
PRIOR FILING DATE: 2000-02-11
PRIOR APPLICATION NUMBER: US 60/133,200
PRIOR FILING DATE: 1999-05-07
PRIOR FILING DATE: 1999-03-23
PRIOR FILING DATE: 1999-03-12
PRIOR FILING DATE: 1999-02-12
NUMBER OF SEQ ID NOS: 1304
SOFTWARE: Patent.pm
LINGTH: 20674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: exon
LOCATION: 17053..17554
OTHER INFORMATION: exon 14
NAME/KEY: misc_feature
LOCATION: 17555..20674
OTHER INFORMATION: 3'regulatory region
NAME/KEY: allele
OCATION: 1128
OTHER INFORMATION: 10-508-191 : polymorp
NAME/KEY: allele
COCATION: 1182
OTHER INFORMATION: 10-508-245 : polymorp
                                                                                                                                                                                                                                                                       FEATURE:
WANGE/KEY: misc_feature
LOCATION: 1123.3123
OTHER INFORMATION: 5'regulatory region
NAME/KEY: exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATION: 12854..13023
ER INFORMATION: exon 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TION: 13308..13429
R INFORMATION: exon 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ION: 16567..16667
INFORMATION: exon 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OCATION: 16775..16945
THER INFORMATION: exon 13
                                                                                                                                                                                                                                                                                                                                                    THE INFORMATION: exon 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OCATION: 12254..12340
THER INFORMATION: exon 9
                                                                                                                                                                                                                                                                                                                                                                                                                             OCATION: 3871..4072
THER INFORMATION: exon 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATION: 5552..5633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ION: 5996..6099
INFORMATION: exon 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATION: 6349..6509
THER INFORMATION: exon 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ION: 8645..8854
INFORMATION: exon 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ION: 7379..7522
INFORMATION: exon 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ON: 5758..5880
INFORMATION: exon
                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
```

```
JERNERAL INFORMATION

APPLICANT: DIEFNBROCK, Christian
APPLICANT: PIEPRBROCK, Christian
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Diagnosis of Diseases Associated with DNA Replication
TITLE OF INVENTION: Dy Assessing DNA Methylation
FILE REFERENCE: 5013-1012
CURRENT APPLICATION NUMBER: US/10/204,708
CURRENT APPLICATION NUMBER: US/10/3971
FRIOR APPLICATION NUMBER: DE 10019058.8
FRIOR FILING DATE: 2000-04-06
FRIOR APPLICATION NUMBER: DE 10019173.8
FRIOR FILING DATE: 2000-04-06
FRIOR APPLICATION NUMBER: DE 10019173.8
FRIOR FILING DATE: 2000-04-06
FRIOR FILING DATE: 2000-06-30
FRIOR FILING DATE: 2000-06-30
FRIOR FILING DATE: 2000-09-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               447 TITAACITITAACITAAATITAATCCTAAATACCTTATTITTATTACTATTAAATAAT 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              387 ATCATTTTTAAATTTAAAATTTTTAACTAATTATTTTAATATATAAAAATACCATTTTAA 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             807 AAATTTGAGGGGGACAAATAAAATATGAAAGTCTATTATTTAAATTTTCCATTAGAATTC: 866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   627 TTCAATTTTTCACGTGATTTTGTTGGTGAACACGCGGTACTTGAAACTTATTATAAATTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 6306;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     encoding carbamoyl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 1100 No. 5849573th Glebe Road, 8th Floor CITY: Arington STATE: Virginia COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 51.6; DB 4;
Pred. No. 0.12;
0; Mismatches 129;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Stewart, Thomas S
APPLICANT: Flores, Maria V
APPLICANT: O'SUllivan, William J
ATTLE OF INVENTION: Nucleotide sequence e:
TITLE OF INVENTION: phosphate synthetase
NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/08446855A Patent No. 5849573 GENERAL INFORMATION:
                 Application US/10204708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 207 rcaaraccarrrraaara 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.8%;
ilarity 50.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     867 TATTTTCCTTAGTTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Nixon & V
STREET: 1100 No. 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
Matches 129, Conserv
                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-204-708-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-446-855A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11380 TAATTTAATATTAATTAATTTAATTTTAATTTTAATTGCTTCAATATTAAATTAAATTTTT 11439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11200 AATTTAAAATTTAAATTTAAATTTAAATAAACATTTAAATTTTTAATTTTAATTAAAT 11259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76 TCCGTTAATAITGTTAAAATATTACCAACTAATTTATAAATTTTTAAGGCAATTAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136 GCATGTTTGATAAAATATATATATTGTTATAAATACTTTTCAAAAGTATAAAGTTGATGA 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTGGTTTAGACATTTAG 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16 ATTAAAAATTTTGATTTTTAAAATTTTTAGAAATTCATGATTTTTATTTTTTTACCAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 52.2; DB 4; Length 20674;
Pred. No. 0.12;
0; Mismatches 178; Indels 0;
                                                                                                                                                                                                                                                                                                                                                    or C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : polymorphic base C or T
                                                                                                                                        : polymorphic base A or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : polymorphic base A or
: polymorphic base A or
                                                                   : polymorphic base A or
                                                                                                                                                                                                              or
                                                                                                                                                                                                                                                                                 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11500 ATTAATTTAAATTTAATATTAAATTTTAATAGCTAAG 11536
                                                                                                                                                                                                                                                                                                                                               : polymorphic base G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : polymorphic base C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : polymorphic base A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : polymorphic base C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316 ATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAG 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : polymorphic base
                                                                                                                                                                                                           : polymorphic base
                                                                                                                                                                                                                                                                              : polymorphic base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : polymorphic base
                                                                                                                                                                                                                                                                                                                                                                                                                         : deletion of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COCATION: 13341
OTHER INFORMATION: 10-507-170: NAME/KEY: allele
LOCATION: 13492
OTHER INFORMATION: 10-507-321
NAME/KEY: allele
LOCATION: 13524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: 10-349-216
NAME/KEY: allele
LOCATION: 8785
OTHER INFORMATION: 10-349-224
NAME/KEY: allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: 10-507-353
NAME/KEY: allele
LOCATION: 13535
                                                                                                                                   OTHER INFORMATION: 10-348-391
NAME/KEY: allele
LOCATION: 8608
                                                                                                                                                                                                                                                                                                                 INFORMATION: 10-347-271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OCATION: 8926
WHER INFORMATION: 10-349-368
WAE/KEY: allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OCATION: 12429
THER INFORMATION: 10-350-332
NAME/KEY: allele
                                                                   INFORMATION: 10-347-348
                                                                                                                                                                                                                                                OCATION: 8658
OTHER INFORMATION: 10-349-97
NAME/KEY: allele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 47.2%;
Matches 159; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OCATION: 12171
THER INFORMATION: 10-350-72
NAME/KEY: allele
                                                                                                                                                                                  LOCATION: 8608
OTHER INFORMATION: 10-349-47
NAME/KEY: allele
                                                                                           NAME/KEY: allele
```

· 0

746

14 RESULT

g ò ВЪ à qq à g ò 셤

```
662 GTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTC 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           526 GTTCCTATÁATÍTTATTTATATTTATTÁATÍTÁATTTATTCÁTÍTÁATTTATÍTÁATTTATÍTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          782 TAAAATCGAAAAATGAAATGTAAAAATTTGAGGGGACAAAAAATAAAATTTGAAAGTCTA 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                646 GAAAAAAAAAAATITTACATATGAAAATGAACTTGTATGTAAATTTÄTAAATATTTTT 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 3.8%; Score 51.6; DB 2; Length 8920; Best Local Similarity 53.5%; Pred. No. 0.13; Matches 108; Conservative 0; Mismatches 94; Indels 0
ZIP: 22201-4714

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.24
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/446,855A
FILING DATE: 06-Jul-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: MICCHAECA, LEODARCA
REGISTRATION NUMBER: 29.009
REFERENCE/DOCKET NUMBER: 47-80
TELECOMMUICATION INFORMATION:
TELEPHONE: 703-816-4100
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 8920 base pairs
ITPRE: mucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            842 TTATTTAAATTTTCCATTAGAA 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           706 AAACATAATATAAATGTATAA 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear; MOLECULE TYPE: genomic US-08-446-855A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

Search completed: February 24, 2004, 11:09:40 Job time: 138.614 secs

PEST AVAILABLE COPY

υ	υυ		טט				RESI	X & & X & B
			4				tv t	
GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.	OM nucleic - nucleic search, using sw model Run on: February 24, 2004, 06:53:45 ; Search time 705.304 Seconds (without alignments)	Title: US-09-743-823-21 Perfect score: 1367 Sequence: 1 taaaataatctatacattaactacacacactagaagaata 1367	Scoring table: IDENTITY_NUC Gapop 10.0 , Gapext 1.0	Searched: 3373863 seqs, 2124099041 residues	Total number of hits satisfying chosen parameters: 6747726	Minimum DB seq length: 0 Maximum DB seq length: 2000000000	Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries	Database : N Geneseq_29Jan04:*  1: geneseqn1990s:* 2: geneseqn1990s:* 3: geneseqn200las:* 5: geneseqn200las:* 6: geneseqn200las:* 7: geneseqn200las:* 9: geneseqn200las:* 10: geneseqn200las:* 10: geneseqn200las:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Soybean 7
Baento 75
Haematopo
Haematopo
Tumour su
Human imm
Human imm
Human pro
Chemicall
DNA trans
Bovine ES
Bovine ES
Bovine ES
Haematopo
Bovine ES
Haematopo Human pro
Human imm
Human imm
Signal tr
Chemicall
Human gen Aaz58125 & Acf80579 E Abz10246 Abz10246 Abz10246 Abz10246 Abz10203 Abilo203 Abilo203 Abv24994 Abx23409 Abx23409 Abx23409 Abx23409 Abx3409 Abx3409 Abx3409 Abx3409 Abx3409 Abx3409 Abx3409 Abx3409 SUMMARIES ABZ10100 AAS46430 ABK4343473 ABL33473 ABL3323 ABV4994 AAS4532 ABX28166 ABX28166 ABX28166 ABX31360 ABX31360 ABX31360 ABX31360 ABX31360 ABX31360 ABX31360 ABZ10246 Query Match Length 8056 8056 8056 6106 6106 7560 7560 7195 8056 115218 1367 282. 282. 774. 772. 64. 46. 46. 46. 64. 64. Result No. 0 0 0 0 0 0

19 Bovine 88 Haemat 96 Dhw arn 96 Dhw arn 41 Human 48 Human 42 Plasmo uachon (1) 13 Human 72 Human 72 Human 934 Chemic, 95 Human 95 Human 95 Human 97 Dhw tr	Ade84150 Human lym
41146004046060804044460606046104610604604610604604610604610604610604610604610604610604610604610604610604610604604610604604610604604610604604610604610604610604610604610604610604610604610604610604610604604604604604604604604604604604604604	ADE84150
たためのRの公のの4ののののたたのの4たた。	עכ
40004040404444400004400	4233
ਰਾ ਹਾ	4,
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
20000000000000000000000000000000000000	<b>4</b>
0 00 00	

## ALIGNMENTS

The present sequence is that of the promoter region of the soybean var. Richland seed-specific 75 basic globulin gene. The promoter can be moroprorated into an soybession-cassette for the invention also including a synthetic gene (see AAZSB122) encoding human lactoferrin and designed for expression of human lactoferrin in transgenic plants. Use of particular leader sequences and promoters allows expression of the lactoferrin in specific tissues, especially seeds. The transgenic plants can be used in processes for the production of functional vegetal milk, fruit juices, fruit and/or vegetable homogenized foods (claimed). Expression of lactoferrin in plants should overcome problems associated with microbial expression and simplify purification. Expression in seeds also leads to an increase in iron content of seed products. The Synthetic polynuclectide encoding human lactoferrin, used for production of functional foods, vegetal milks and human lactoferrin. Globulin; promoter; soybean; lactoferrin; human; transgenic plant; seed storage protein; ds. Soybean 7S basic globulin gene promoter. Claim 7; Page 85-86; 93pp; English. AAZ58125 standard; DNA; 1367 99WO-IT000226 98IT-RM000478 (first entry) (PLAN-) PLANTECHNO SRL WPI; 2000-161129/14. WO200004146-A1 17-JUL-1998; 19-JUL-1999; 25-APR-2000 Glycine max. 27-JAN-2000. AAZ58125; Fogher C; SULT 1 

8 X C C C

g

\$ B \$

ò

g

g ò Db 8 P 8 g  $\dot{\delta}$ d  $\delta$ Ωp 상 ŏ β 8 Q ò g 8

à

```
g
                                                                                                  g
                                                                                                                           ò
                                                                                                                                                   q
                                                                                                                                                                               ò
                                                                                                                                                                                                    Ор
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        096
                                                                                                                                                                                              120
                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                            9
                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGG
                                                                                                                                                                                                                                                                  TTTTAAGGCAATTAAGCATGTTTGATAAATATATATATTATTATAAAAAAATAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                            TAGGAAAAAAAAGAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACGTGACCCAACATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTIGGICTIGCTTTTGCGCCTCTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTATATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATAAAATCGAAAAATGAAATGTAAAAATTTGAGGGGACAAAATAAAAATGAAAAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTATTTTAAATTTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGAT
                                                                                                                                          TAAAATAATCTATACATTAAAAATTTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                    TAAAATTAATCTATACATTAAAAATTTTGATTTTTAAAATTTTAGAATTTCATGATTTTATT
                                                                                                                                                                                                TITITITIACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                        TITITITACCAGAAATCCGITAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                          GTATAAAGTIGAIGAIGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCCAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                         GGTTTAGACATTTAGCCTTATTCTTTTTTTTAAAATGTAAATGTAAATGGAAAACCTT
                                                                                                                                                                                                                                                                                                                                                                                                           TAGGAAAAAAAAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACGTGACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TICAATACTITITICCACTICTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCAATACTTTTTCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTTAAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATAICCAACGGICCIAAAAAACITGIGIACCGIGCCICACAITICAACITIGCGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCGCATCACTCAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTTGGTCTTGCTTTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTACTTGAAACTTATTATAATTACATAATTTTTATAAGTTTTCACTTCTTATATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATAAAATCGAAAAAATGTAAAAAATTTTGAGGGGACAAATAAAATATGAAAGTCT
                                                                                                                                                                                                                                                 TTTTAAGGCAATTAAGCATGTTTGATAAAATATATATTATTGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                      GTATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCGCATCACTCAGGAGGCT
genic plants are selected from solanaceae, cereals, leguminosae, bearing plants and horticultural plants, especially soybean, to and rice
                                                                                                                    Gaps
                                                                                                                   ;
0
                                                                                        Length 1367;
                                                               Seguence 1367 BP; 475 A; 245 C; 202 G; 445 T; 0 U; 0 Other;
                                                                                                                 Indels
                                                                                        Score 1367; DB 3;
Pred. No. 6.4e-212;
0; Mismatches 0;
                                                                                       100.0%;
                                                                                                                   Conservative
                                                                                                      Best Local Similarity
Matches 1367; Conserv
         transgenic plants
fruit bearing plar
                                       tobacco and
                                                                                                                                             Н
                                                                                                                                                                                                 61
                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                         Query Match
```

qq

8

В

ò

```
1260
                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1320
                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence is that of the basic 7S soy globulin promoter. Expression cassettes including this promoter may further comprise a DNA sequence coding for a lyososmal enzyme and a signal sequence capable of dispatching the lyososmal enzyme to the seed storage organs of a plant. The lysosomal enzyme is preferably human glucocerebrosidase, human alphaglactosidase or human alphaglucosidase. The invention is based on the discovery that lysosomal enzymes can be expressed in seed storage organs in a form which is stable (over 12 months in stored seeds), enzymatically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Soybean; plant; globulin; promoter; lysosome; enzyme; transgenic plant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New genetically transformed plant that can produce a lysosomal enzyme animal or human origin, useful for preparing a medicament for enzyme replacement therapy in Gaucher, Anderson-Fabry or Pompe disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCAAGACAAAATCCAAGCCAAGCTAGCTGCTCACGCGAACTCGATCCACACGTCCTTT
                                              961 AGCAAGACAAAATCCAAGCCAAGCTAGCTGCTCACGCGAACTCGATCCACACGTCCTTT
                                                                                                                                          CAAGTACCCCTCACACTCACCAACCCTTTGTTTTTCTCCCCATTGCATGTTAACTCAAGT
                                                                                                                                                                                                                                                           CAAGTACCCCTCACACTCACCAACCCTTTGTTTTTCTCCCCCATTGCATGTTAACTCAAGT
                                                                                                                                                                                                                                                                                                                           TTATCCTTTCTTTGCTTCTGGAAATTTCACAAGCCTCAAACACGTCGACGTCCAATCTTG
                                                                                                                                                                                                                                                                                                                                                                            1141 TTATCCTTTCTTTCTCTGGAATTTTCACAAGCCTCAAACACGTCGACGTCCAATCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                      TGACCAACACGGCCAAAAGAAAAAAGAGAATCTCATCCCGTTCACACTTAGCCACTTAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TATICAATATICAAACCTIGCTCTATACTACACACACACTAGAAGAATA 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TATICAATATICAAACCTIGCICTATACTACACACACAGAAGAATA 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 47; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Basic 7S soy globulin promoter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACF80579 standard; DNA; 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-MAR-2003; 2003WO-IT000120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2002; 2002IT-RM000115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (PLAN-) PLANTECHNO SRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-712829/67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2003073839-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fogher C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACF80579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Glycine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACF80579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
```

1140 1139

SXS

g  $\delta$ 엄정

 $\delta$ 

d  $\delta$ ద  $\stackrel{>}{\circ}$ D ò DP

```
Detecting and differentiating between hematopoietic cell proliferative disorders, comprises contacting a target nucleic acid with a reagent that distinguishes between methylated and non-methylated CpG dinucleotides.
   GGAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGA
                                                                                                                                                                                                                                                          TITATCCTTTCTTTGCTTCTGGAATTTCACAAGCCTCAAACACGTCGACGTCCAATCTT
                                                                     TACAGAGTITICAAACGGATGAAATCTGCATGGCATGCAACTAAAGCATTGTTCTCAGCTG
                                                                                                                                  TACAGAGTTTCAAACGGATGAAATCTGCATGGCATGCAACTAAAGCATTGTTCTCAGCTG
                                                                                                                                                                                                                                                                                                  GTGACCAACACGGCCAAAAGAAAAGAATCTCATCCCGTTCACACTTAGCCACTTAAAG
                                                                                                                                                                         CCAAGTACCCCTCACACCCATTTGTTTTTTTTTCTCCCCATTGCATGTTAACTCAAG
                                                                                                                                                                                                       ccaagraccccrcaccaccccrrrgrrrrrrcrcccarrgrrancraag
                                                                                                                                                                                                                                                                                                                              GTGACCAACACGGCCAAAAGAAAAGAATCTCATCCGTTCACACTTAGCCACTTAAAG
                                                                                                                                                                                                                                                                                                                                                               TTTATCCTTTCTTTGCTTCTGGAAATTTCACAAGCCTCAAACACGTCGACGTCCAATCTT
                                                                                                                                                                                                                                                                                                                                                                                           Pelet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human, haematopoietic cell proliferation disorder; cytostatic; gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia; cytosine methylation state; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Guetig D, Howe A, Mueller J;
P, Grabs G, Lesche R, Leu E;
Model F, Mueller V, Otto T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Haematopoietic cell proliferation disorder related DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                            TTAITCAATAITCAAACCTIGCICTAIACTACACACACAGAAGAATA 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                               TATTCAATATTCAAACCTTGCTCTATACTACACACACTAGAAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes a method for detecting and differentiating between haematopoietic cell proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28; SEQ ID NO 386; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berlin K, Braun A, Distler J, (Olek A, Piepenbrock C, Adorjan Lewin A, Lipscher E, Maier S, 1 Schwope I, Ziebarth H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-MAR-2002; 2002WO-EP003401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA; 8056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAR-2001; 2001US-0278333P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-018942/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200277272-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-OCT-2002.
                                                                               1021
                                                                                                            1020
                                                                                                                                            1081
                                                                                                                                                                         1080
                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                   1200
                                                                                                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABZ10246;
                   961
                                                                                                                                                                                                                                                                                                                                                                                                                            1320
                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABZ10246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABZ10246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                         6 6 6 6 6
                                                                                                                                                                                                                           6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                   장염
                                                                                                                                                                                       120
                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                 GGTTTAGACATTTAGCCTTATTCTTTTTTCTAACCAAATAAAAATGAAAATGGAAAAACCTT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                       TAGGAAAAAAAAGAAATCAAAAATTGAAAAACATCCAGGTGGAGTCGAGAAGCCCACACC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAGGAAAAAAAGAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATCCAACGGTCCTAAAAAAAAATTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAGAAGCCGTCTATGTTTTAGGTTAGTGTTTGCATTGAAGCGCATCACTCAGGAGGC 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACGIGACCCAACAATATAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACGIGACCAACAATATAAAATAAGAGITIGCICIACAGIAAAIGCGATACTITITIA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACTIGGICTIGCTITIGCGICTITIGITCAATTITICACGIGATTITIGGIGAACAC 659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCATTCATGCATTTATAATTTTGATGAATAATAAGAGTTTGTTAAAAAATATATTT 780
                                                                                                                             9
                                                                                                                                                       9
                                                                                                                                                                                                                                                  TGAAAGCCGT-TATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGC
                                                                                                                                            TAAAATAATCTATACATTAAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                     TITITIACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                         TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                             GTATAAAGTTGATGATGCCGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                          TTCAATACTTTTTCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTATAATAC
                                                                                                                                                                                                                                                                         TITITAAGGCAATTAAGCATGTTTGATAAATATATATATATTGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                            GTATAAAGTTGATGATGGCGTGGTGGTAGATTTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TICAATACTITITICCACTICTAAAATCTIGGAGATTIGCACCGTTAACTAATTAAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATATCCAACGGTCCTAAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACTIGGTCTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTGGTGGTGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGTACTTGAAACTTATATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATAAATCGAAAAATGAAATGTAAAAATTTTGAGGGGACAAATAAAATATGAAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATAAAATCGAAAAAATGTAAAAAATTTGAGGGGGACAAATAAAATTAGAATATGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGGCTAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGA
                                                                                                                          TAAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                        Score 1282.8; DB 9; Length 1428;
Pred. No. 2.5e-198;
0; Mismatches 2; Indels 61;
                               BP; 499 A; 249 C; 208 G; 472 T; 0 U; 0 Other;
active and in a high amount suitable for medical use
                                                              93.8%;
95.6%;
                                                         Query Match
Best Local Similarity 95.67
Matches 1365, Conservative
                               Sequence 1428
                                                                                                                                                                                                                                                                                121
                                                                                                                                                       Н
                                                                                                                                                                                       61
                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
```

Dp

ò

Sy Op

g

 $\delta$ g à

ò

qq

ò

QQ

ò

Ob

 $\overset{\circ}{\circ}$ PP Oy

면 상 연

ΰ

%\$GGGGGGGGGGGGGGGGGG

```
consisted with at least 1 gene and/or their regulatory regions in a subject. The method comprises contacting a target nucleic acid in a biological sample obtained from the subject with at least 1 reagent, which distinguishes between methylated and non-methylated CpG dinucleotides within the target nucleic acid. ABZ09661 to ABZ11118 represent specifically claimed nucleotide sequences from the present invention. Oligonucleotides from the present invention can be used: for differentiating between healthy heamatopoietic cells and proliferative disorder haematopoietic cells, for differentiating between acute classification between acute determining the cytosine methylation state and/or single nucleotide polymorphisms (SNPs) of haematopoietic cell proliferation disorder related sequences and thair complements, and as primers for the related sequences and thair complements, and as primers for the sequences. The nucleotide sequences from the present invention can also be used for detecting a predisposition to, differentiation between acids of the contraction disorder related by a sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTAAAGG 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236 AAGTIGGITIAGACATITAGCCITAITCITITITCIAACCAAAATAAAIGIAAAIGGAAA 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITIATICAATACTITITCCACTICTAAAICTIGGAGATTIGCACCGTIAACTAATIAA 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   enables a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAAAGTATAAAGTTGATGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGC 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2192 AAAAAATGAAAAAAAAAAAAAAAAAAAAAAAAATITIAAITITIAATAAAATITITI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      476 GIGITATATCCAACGGICCTAAAAAAACTTGTGTACCGIGCCTCACATTTCAACTTTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    536 CACCCTGAAAGCCGTTATGTTTAGGTTAGTTTTGCAACAGTTGAAGCGCATCACTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      656 ACACGCGTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 TCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 596 AGGCTACTIGGTCTITGCGTCTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACACCCACGTGACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subclasses, diagnosis, prognosis, treatment and/or monitoring of haematopoietic cell proliferative disorders. The present method enabhighly specific classification of haematopoietic cell proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disorders allowing for improved and informed treatment of patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 44.6%; Pred. No. 0.0029; Conservative 0; Mismatches 474; Indels 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 8056 BP; 3711 A; 0 C; 371 G; 3974 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAATTAAGCATGTTTGATAAAATATATATATTGTTATAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 44.6
Matches 393; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          416
```

g

P ò qq ò g

 $\delta$ g δ Db  $\delta$ 임 ò

à

QQ

g õ gg à d à

835 Detecting and differentiating between hematopoietic cell proliferative disorders, comprises contacting a target nucleic acid with a reagent that distinguishes between methylated and non-methylated CpG dinucleotides. ΰ lymphocytic leukaemia and acute myelogenous leukaemia; as probes for determining the cytosine methylation state and/or single nucleotide polymorphisms (SNPs) of haematopoietic cell proliferation disorder related sequences and their complements; and as primers for the amplification of haematopoietic cell proliferation disorder related DNA sequences. The nucleotide sequences from the present invention can also be used for detecting a predisposition to, differentiation between subclasses, diagnosis, prognosis, treatment and/or monitoring of for in be used: for proliferative ATAGAATAAAATCGAAAAATGAAATGTAAAAATTTTGAGGGGGACAAATAAAATATGAA Pelet The present invention describes a method for detecting and differentiating between haematopoietic cell proliferative disorders associated with at least 1 gene and/or their regulatory regions in a subject. The method comprises contacting a target nucleic acid in a biological sample obtained from the subject with at least 1 reagent, which distinguishes between methylated and non-methylated CpG dinucleotides within the target nucleic acid. AE20961 to AE21118 represent specifically claimed nucleotide sequences from the present invention. Oligonucleotides from the present invention can be used; differentiating between healthy haematopoietic cells and proliferativ disorder haematopoietic cells; for differentiating between acute Haematopoietic cell proliferation disorder related DNA sequence #386. gene therapy, lymphocytic leukaemia, acute myelogenous leukaemia; cytosine methylation state; gene; ds. Howe A, Mueller J; G, Lesche R, Leu E; Mueller V, Otto T, E Human; haematopoietic cell proliferation disorder; cytostatic; AATAAATTTTTAAATTTTTAAATTTTATTTTTTTT 836 AGTCTATTTTAAATTTTCCATTAGAATTCTATTTTCCTT Guetig D, P, Grabs ( Model F, 1 Claim 28; SEQ ID NO 386; 117pp; English. Braun A, Distler J, Piepenbrock C, Adorjan Lipscher E, Maier S, 1 BP. 26-MAR-2002; 2002WO-EP003401. 26-MAR-2001; 2001US-0278333P. ABZ10246 standard; DNA; 8056 (first entry) Lipscher E, Ziebarth H; (EPIG-) EPIGENOMICS AG. WPI; 2003-018942/01. WO200277272-A2. Homo sapiens. Lewin A, Li Schwope I, 03-OCT-2002, 16-JAN-2003 Olek A, à g ð 임  $\delta$ 

S

```
2647
                                                                                                                                                                                                           2587
                                                                                                                                                                                                                                                                                                                                                                     2410
                                                                                                                                                                                                                                                                                                                                                                                                                        2350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2290
                                                                                                       ω
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2057
                                                                                                                                                                                                                                                             2586 TTAATTT---TITAAAATTTTAAATTTTAAATTTTAAATTTTTAATTTAATTTAATTT 2530
                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTACTIGAAACITAITATAAAT-TACATAATITITATAAGITTCACTICTTATATAATACT 720
                                                                                                                                                                                                                                                                                                                                                                                              AGGAAAAAAAAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACACC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 ATAAAATCGAAAAATGAAATGTAAAAATTTTGAGGGGGACAAATAAAATATGAAAGTCT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGG 900
                                                                                                                                 61
haematopoietic cell proliferative disorders. The present method enables highly specific classification of haematopoietic cell proliferative disorders allowing for improved and informed treatment of patients
                                                                                                                              2 AAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTAATTT
                                                                                                                                                       TITITIACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTAT
                                                                                                                                                                                                        2646 TririririririririririnaAarrahirarariraharririririririkarri
                                                                                                                                                                                                                                   TITAAGGCAATTAAGCATGTTTGATAAAATATATATATTGTTATAAATACTTTTCAAAAG
                                                                                                                                                                                                                                                                                                                                                                    602 CTTGGTCTTGCTTTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTTGTTGGTGAACACGC
                                                                                                                                                                                                                                                                                       TATAAAGTTGATGATGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTG
                                                                                                                                                                                                                                                                                                                                          242 GITTAGACATITAGCCTTATICITTTTTCTAACCAAAATAAATGTAAATGGAAAAACCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      482 TATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                ACGTGACCCAACAATATAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAATACTTTTTCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   542 GAAAGCCGTTATGTTTTAGGTTAGTGTTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGA
                                                                                                       11;
                                                    Sequence 8056 BP; 3711 A; 0 C; 371 G; 3974 T; 0 U; 0 Other;
                                                                                                     0; Mismatches 519; Indels
                                                                              Length
                                                                             DB 7;
                                                                                         0.006;
                                                                           Score 72.6;
Pred. No. 0.0
                                                                           / Match 5.3%;
Local Similarity 44.5%;
Nes 425; Conservative (
                                                                                                                                                                                 62
                                                                                                                                                                                                                                   122
                                                                                                                                                                                                                                                                                        182
                                                                                                                                                                                                                                                                                                                                                                                                                       2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1936
                                                                                                                                                                                                                                                                                                                                                                                             302
                                                                                                                                                                                                                                                                                                                                                                                                                                                362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1816
                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
  888888
                                                                                                                              à
                                                                                                                                                    Ωp
                                                                                                                                                                                 δ
                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
```

```
The present invention describes a method for detecting and differentiating between haematopoietic cell proliferative disorders associated with at least 1 gene and/or their regulatory regions in a subject. The method comprises contacting a target nucleic acid in a biological sample obtained from the subject with at least 1 reagent. Use it is the invention of istinguishes between methylated and non-methylated CpG dinucleotides within the target nucleic acid. ABZ09861 to ABZ1118 represent specifically claimed nucleotide sequences from the present invention. Oligonucleotides from the present invention can be used: for differentiating between healthy haematopoietic cells and proliferative disorder haematopoietic cells; for differentiating between acute lymphocytic leukaemia and acute myelogenous leukaemia; as probes for determining the cytosine methylation state and/or single nucleotide polymorphisms (SNPs) of haematopoietic cell proliferation disorder related sequences and their complements; and as primers for the complements and as primers for the sequences and their complements; and as primers for the sequences. The nucleotide sequences from the present invention of because from the present invention of a used for detecting a predisposition to, differentiation between the subclasses, diagnosis, prognosis, treatment and or monitoring of haematopoietic cell proliferative disorders. The present method enables a highly specific classification of haematopoietic cell proliferative highly specific alsoride improved and informed treatment of patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Detecting and differentiating between hematopoietic cell proliferative disorders, comprises contacting a target nucleic acid with a reagent that distinguishes between methylated and non-methylated CpG dinucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pelet C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTTTTTA
                                                                                                                                                       Haematopoietic cell proliferation disorder related DNA sequence #240.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mueller J;
                                                                                                                                                                                       Human, haematopoletic cell proliferation disorder, cytostatic, gene therapy, lymphocytic leukaemia, acute myelogenous leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Howe A, Mueller J;
G, Lesche R, Leu E,
Mueller V, Otto T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5.2%; Score 71.4; DB 7; Length 8056; 14.4%; Pred. No. 0.0094; Indels 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 8056 BP; 3711 A; 371 C; 371 G; 3603 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Guetig D,
P, Grabs (
Model F, N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 28; SEQ ID NO 240; 117pp; English.
                                                                                                                                                                                                                                cytosine methylation state; gene; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Berlin K, Braun A, Distler J, Olek A, Piepenbrock C, Adorjan
                                        BP
                                                                                                                                                                                                                                                                                                                                                                                            26-MAR-2002; 2002WO-EP003401.
                                        8056
                                                                                                                                                                                                                                                                                                                                                                                                                                26-MAR-2001; 2001US-0278333P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44.48;
                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      al Similarity 44.4
391; Conservative
                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lipscher E, |
Ziebarth H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-018942/01.
                                      ABZ10100 standard;
                                                                                                                                                                                                                                                                                                            40200277272-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Olek A, Pier
Lewin A, Lit
Schwope I, 2
                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                  16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                   03-OCT-2002.
                                                                           ABZ10100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ο,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
RESULT 5
ABZ10100
                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

Ŋ

```
2131
                                                                                                                                                                                                                                                             2251
                                                                                                                                                                                                                                                                                                                                                           2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2612. АТАТААНТААТТТАААААААААААААААААААААААССТТААААНТТААААТТТТАААААТ 2671
                                                                                                                  2071
                                                                                                                                                                                                              2372 АТАААТААТТТАТТААЎТТТАТТАТТТТГСВААААТТАААААААААТААТТТАГТТАТ 2431
                                                                    2011
                                                                                                                                          295
                                                                                                                                                                                                                                     415
                                                                                                                                                                                                                                                                                    475
                                                                                                                                                                                                                                                                                                                                   GIGITATATCCAACGGICCTAAAAAACTIGIGIACCGIGCCTCACATTICAACTITGCG 535
                                                                                                                                                                                                                                                                                                                                                                                 595
                                                                                                                                                                                                                                                                                                                                                                                                                                 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           776 ATAGAATAAAATCGAAAAATGAAATGTAAAAATTTTGAGGGGGACAAATAAAATATGAA 835
                                            175
                                                                                           235
                                                                                                                                                                                       296 ACCTITAGGAAAAAAAAAAATCAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCC 355
CCAGAAATCCGTTAATATTTGTTAAAATATTACCAACTAATTTATAAATTTTATAAGG 128
                                                                                                                                                                                                                                                                                                                                                                                 CACCCTGAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACACGCGTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2492 TAATTAAAATATTAACGAAAAATAAAAAAAAAATAAATTAAAATTAAAATAAAAA
                                                                    CAAAAGTATAAAAGTTGATGATGACGTGGTAGATTATTTTAGTTCTAGGTTCGAATGC
                                                                                                                                          TITIATICAATACTITITCCACTICTAAAATCTTGGAGATTTGCACCGTTAACTAATTAA
                                                                                                                                                                                                                                                                                                                                                          596 AGGCTACTTGGTCTTGCTTTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACACCCACGIGACCCAACAATAITAAAAIAAGAGIIIIGCICIACAGIAAAIGCGAIACII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            836 AGTCTATTATTTAAATTTTCCATTAGAATTCTATTTTCCTT
                                              CAATTAAGCATGTTTGATAAAATATATATATTGTTATAAAT
                                                                                                                                                                                                                                                                                                             2252
                                              129
                                                                                                                                                                                                                2132
                                                                                                                                                                                                                                        356
                                                                                                                                                                                                                                                               2192
                                                                                                                                                                                                                                                                                     416
                                                                                                                                                                                                                                                                                                                                    476
                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                              d
                                                                                                                                                                                    ò
                                                                                                                                                                                                           g
                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                 유
                                            ò
                                                                g
                                                                                            8
                                                                                                               d
                                                                                                                                       ò
```

Fragments of chemically modified genes associated with tumor suppressor genes and oncogenes, useful in designing primers and probes for analyzing diseases associated with cytosine methylation state e.g. cancer.

Berlin

Piepenbrock C,

olek A,

WPI; 2001-602752/68.

(EPIG-) EPIGENOMICS AG.

01-SEP-2000;

; 2000DE-01013847. ; 2000DE-01019058. ; 2000DE-01019173. ; 2000DE-01032529.

15-MAR-2001; 2001WO-EP002955

15-MAR-2000; 06-APR-2000; 07-APR-2000; 30-JUN-2000;

WO200168912-A2.

20-SEP-2001

Claim 1; SEQ ID NO 152; 27pp; English

```
The invention relates to a nucleic acid comprising a sequence of 18 bases, of a segment of chemically pretreated DNA (CP DNA) e.g. with bisulphite, of genes associated with tumour suppression and oncogenes having a sequence taken from 536 (actually 533 since numbers 408, 458 and caving a sequence taken from 536 (actually 533 since numbers 408, 458 and 500 are missing from the sequence listing) sequences (Ss) and sequences complementary to (Ss). The nucleic acid may be a peptide nucleic acid-oligomer (PNA) of at least 9 nucleotides and may form part of a set of probes for detecting the cytosine methylation state and/or single complexide polymorphisms and also to be used in an array for analysing diseases associated with Cpd dinucleotides e.g. cancers and tumours. The predenter section to specific diseases, by analysing diseases or the predisposition to specific diseases, by analysing cytosine methylations. The parameters may be compared to another set of genetic and/or epigenetic parameters may be compared to another set of patients. The present sequence is one of the 533 genences for tumobered Seq ID numbers as sequence is one of the 533 genence of the numbered sequence is one of the 533 genence of the corresponding odd numbered sequence (e.g. ID 2 and ID). ID 536 and ID 535, except for those whose partner sequence is missing). Note: The sequence data for this patent din not form part of the printed sequence in the parameter sequence is missing). Note: The sequence of the corresponding odd numbered sequence is energial complementary sequence of the sequence of the sequence data for this patent did not form part of the printed from those whose partner sequence is missing). Note: The feature of the minimal of the sequence of the s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTTTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATTTTAAAGTTTTTATTAGAAGTTAAATTAAAAATGCGGTAAAAATTTTATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITIAAGGCAATTAAAGCATGTTT-GATAAAATATATATATTGTTATAAAATACTTTTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 6106 BP; 2270 A; 30 C; 1049 G; 2757 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.7%; Score 64.4; DB 4; I
56.5%; Pred. No. 0.13;
tive 0; Mismatches 106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 56.5
Matches 139; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tumour suppressor gene derived chemically modified sequence #152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAS46430 standard; DNA; 6106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
```

1;

Gaps

Ä

DB 4; Length 6106; Indels 856 120 916 179 916

09

TGGTTT 245

240

AGTATAAAGTTGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGT

180 277

ö q à

Human; tumour suppressor gene; oncogene; antitumour; cytostatic; cancer; tumour; CpG dinucleotide; single-nucleotide polymorphism; SNP; cytosine methylation; ds.

Homo sapiens

18-DEC-2001

AAS46430
TD AAS4
XX AC AAS4
XX XX DT 18-T
XX XX TUMC
XX XX TUMC
XX XX HUME
XX XX HUME
XX XX HUME
XX YX YX HUME
XX YX HUME
XX YX HUME

AAS46430,

RESULT

239

797

1037 GAĞTAT 1042

New nucleic acid, oligonucleotides and peptide nucleic acid-oligomers, useful for detecting cytosine methylation state of genes associated with pharmacogenomics and for therapy of diseases e.g. cancer. Human, ds; bisulphite treatment, CpG; DNA methylation, cancer; tumour, cytostatic, ALDHG; CYP11A; CYP13A1; DYD; EPHX2, OCLN; TXNRD1, UGT8; MRP; pharmacogenomics; SNP; single nucleotide polymorphism. Sequence 6106 BP; 2270 A; 30 C; 1049 G; 2757 T; 0 U; 0 Other; Human chemically pretreated gene sequence #57 strand 2. ABK40032 standard; DNA; 6106 BP. 29-JUN-2001; 2001WO-EP007470 30-JUN-2000; 2000DE-01032529. 01-SEP-2000; 2000DE-01043826. (first entry) Olek A, Piepenbrock C, (EPIG-) EPIGENOMICS AG WPI; 2002-154757/20. WO200202806-A2 Homo sapiens. 21-MAY-2002 10-JAN-2002 ABK40032; ABENUT 7
ABENUT 7
ABENUT 7
ABENUT ABE

Berlin

The invention relates to a nucleic acid comprising a sequence at least 18 bases in length of a segment of the chemically pretreated DNA of genes associated with pharmacogenomics according to one of the sequences of the genes ALDHG (NM 000693), CYPITA (NM 000781) (NM 000497), CYPITA (NM 000781) (NM 001979), CYPITA (NM 000781) (NM 001979), CYPITA (NM 001900, NM 019901, NM 019902, NM 019902, NM 019902, NM 019903, NM 0 ftp.wipo.int/pub/published\_pct\_sequences Claim 1; SEQ ID NO 114; 24pp; English

```
The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AnDS. epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention
61 TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; immune system disease; cytosine methylation; antiasthmatic; antiarteriosclectoric; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulant; ophthalmological; antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antiinflammatory; cancer; eye disease; arteriosclerosis; anemia; acute myeloid leukaemia; Alzheimer's disease; AlDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       fragment of chemically modified gene, useful for of diseases associated with abnormal cytosine
                                                                 121 TITTAAGGCAATTAAGCATGTTT-GATAAAATATATATATGTTATAAAATACTTTTCAAA
                                                                                                  180 AGTATAAAGTTGATGATGAGGGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 6106 BP; 2270 A; 30 C; 1049 G; 2757 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; SEQ ID NO 1446; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immune system associated gene SEQ ID NO: 1446.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Berlin K;
                                                                                                                                                                                                                                                                                                                              ABL33473 standard; DNA; 6106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-JUN-2000; 2000DE-01032529.
01-SEP-2000; 2000DE-01043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JUL-2001; 2001WO-EP007537
                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dlek A, Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nucleic acid comprising diagnosis and treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                       1037 GAĞTAT 1042
                                                                                                                                                                                                        240 TGGTTT 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-130909/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200200928-A2.
                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           methylation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-JAN-2002.
                                                                                                                                                                                                                                                                                                        g
                                                                                           셤
                                                                                                                                                                  g
                                                          \overset{\sim}{\circ}
                                                                                                                             \dot{\delta}
                                                                                                                                                                                                    ò
```

Query Match
4.7%; Score 64.4; DB 6; Length 6:
Best Local Similarity 56.5%; Pred. No. 0.13;
Matches 139; Conservative 0; Mismatches 106; Indels

1;

2131

2191

180

120

. 0

Gaps

. 0

2311

240

Db à DP à q 8 q 8

```
2312 GATTTTGAAATTAAATTTATAATTTAAAAAAAAAGAATATTGAAAAATAGGAAAAAGA 2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTTTTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                 121 ITTTAAGGCAATTAAGCATGTTTGATAAATATATATTATTGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                        2192 GTTTTAGATTATAGAAAAAAGATTTAAAAGATTTTTAAAATTGTTTTATATAATGTAAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2252 TITIATITITAATTIGATATATTAATAAATGAGIGATITATGTTATTATAATTTA
                                                                                                                                                                         1 TAAAATTAGATTAAAAAATTTTGATTTTAAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                               2072 iaaaanaaagaarigarrararrarrirrrrirrirrirrarrirrisgaarrarrarra
                                                                                                                                                                                                                                                                                           2132 AATTTTATGTAAGGTAATTTTTTTTTTTATAATTTTTTTATATGTTÄTÄTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                             181 GTATAAAGTTGATGATGAGGGGGGGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel
diseases. The present sequence is a gene of the invention
                                                                                      4.7%; Score 64.2; DB 6; Length 7560; ilarity 50.5%; Pred. No. 0.14; Conservative 0; Mismatches 153; Indels 0
                                                       Sequence 7560 BP; 2154 A; 47 C; 1554 G; 3805 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABV44994 standard; cDNA; 309 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-YAR-2000) 2000US-018982P.
25-YAY-2000) 2000US-0207454P.
09-UUN-2000) 2000US-021314P.
18-UUL-2000) 2000US-0219007P.
13-DEC-2000) 2000US-0255281P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-FEB-2001; 2001WO-US005171.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0183319P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2372 AAAGATAAA 2380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ĕ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 TAGGAAAA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Endege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-662795/76.
                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; prostate
pharmacogenomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200160860-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ч,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-2002
                                                                                                                                      156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schlegel
                                                                                                   Query Match
                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
    ន្តដូន
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                               \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis,
                                                                                                                                                                                                                                                                                                                    239
                                                                                                                   856
                                                                                                                                                           TITITITACCAGAAATCCGITAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA 120
                                                                                                                                                                                                  916
                                                                                                                                                                                                                                     TITIAAGGCAATTAAGCATGTTT-GATAAATATATATATTGTTATAAATACTTTTCAAA 179
                                                                                                                                                                                                                                                                               976
                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; immune system disease; cytosine methylation; antiasthmatic; antianteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmologici, antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antihlammatory; cancer; eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AlDS; epilepsy; neurofibromatosis; rheumatodia rthritis; psoriasis; bowel disease; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fragment of chemically modified gene, useful for of diseases associated with abnormal cytosine
                                                                                                                                                                                                TTTTTTTTTATTATTAATTTTTTTTTTTTGAGATGAAATTAAAGAAATTTTAATTTTA
                                                                                                                                                                                                                                                                               9.7 ATTAAATTTGATTGTAAATTTTTAGTTAAGATAAATATATTTTTATAAGATTAGATTTGTAA
                                                                                                                   TATTTTAAAGTTTTTATTTAGAAGTTAATTAAAAATGCGGTAAAAATTTTTATTTT
                                                                                                                                                                                                                                                                                                                  AGTATAAAGTTGATGATGGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGT
                                                                              TAAAATTAATCCTATAAAAATTTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                             Gaps
                                           1;
      Length 6106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; SEQ ID NO 1196; 32pp + Sequence Listing; German.
                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       system associated gene SEQ ID NO: 1196.
Score 64.4; DB 6;
Pred. No. 0.13;
0; Mismatches 106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP
    4.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABL33223 standard; DNA; 7560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-JUL-2001; 2001WO-EP007537,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JUN-2000; 2000DE-01032529.
01-SEP-2000; 2000DE-01043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acid comprising diagnosis and treatment methylation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                      1037 GAĞTAT 1042
                                                                                                                                                                                                                                                                                                                                                                                                 240 TGGTTT 245
                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
      Query Match
Best Local Simi
Matches 139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     33-JAN-2002
                                                                                                                                                             61
                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL33223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Olek A,
```

CMOF

RESULT 9
ABL3323
ID ABL3323
ID ABL3323
ID ABL323
ID ABL323
ID BT 26-1
ID BT 30-1
ID BT 3

```
cytostatic; carcinogen; pharmacodyanamic marker;
gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel isolated nucleic acid molecule associated with cancerous state of prostate cells and correlating with presence of prostate cancer, useful for detecting presence of prostate cancer.
Human prostate expression marker cDNA 44985.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MILL-) MILLENNIUM PREDICTIVE MEDICINE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 8916; 11750pp; English
```

a

```
The invention relates to an isolated nucleic acid molecule (I) comprising a nucleotide sequence given in Tables 1-9 (ABV00010-ABV62213) of the specification or its complement. (I) is useful for: (a) assessing whether a patient is affilicted with prostate cancer; (b) monitoring the progression of prostate cancer in a patient; (c) assessing the efficacy of a test compound to inhibit prostate cancer in a patient; (d) assessing the efficacy of a therapy for inhibiting prostate cancer in a patient; (e) selecting a composition for inhibiting prostate cancer in a patient; (f) assessing the prostate cell carcinogenic potential of a compound; (g) determining whether prostate cancer has metastasized in a patient; (h) assessing the aggressiveness or indolence of prostate cancer in a patient; (h) assessing the aggressiveness or indolence of prostate cancer in a patient
                                                                                                                                                                                                                                                                                                                                                                                                          sessing the aggressiveness or indolence of prostate cancer in a patient (I) is also useful as a pharmacodyanamic or pharmacogenomic marker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 309 BP; 188 A; 13 C; 11 G; 97 T; 0 U; 0 Other;
X00000000000000XX
```

```
ö
                                                      680
                                                                                                        740
                                                                                                                                  138
                                                                                                                                                          800
                                                                                                                                                                                78
                                                  621 CTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACGCGTACTTGAAACTTATTATA
                                                                              741 GAATGCCAATTTTTAAAAAAAAAATAAAAATTAAATAGAATAAAATCGAAAAAATGAAA
                                                                                                      681 AATTACATAATTTTATAAGTTTCACTTCTTATATAATACTCATATAATATATAGGGTTTA
                            Gaps
4.7%; Score 64; DB 5; Length 309;
llarity 56.0%; Pred. No. 0.14;
Conservative 0; Mismatches 95; Indels
                                                                                                                                                                                                          801 TGTAAAAATTTGAGGGGGACAAATAAAATATGAAA 836
                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                           121;
                                                                            13
             Best Loca
Matches
                                                                           g
                                                                                                     ò
                                                                                                                             엄
                                                                                                                                                      à
                                                                                                                                                                               g
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                g
```

325/c AAS45325 standard; DNA; 7195 18-DEC-2001 AAS45325; RESULT 11

(first entry)

Chemically pretreated complementary DNA associated with cell cycle #15.

Cell cycle, human, CpG dinucleotide, cytosine methylation, HIV; aging, human immunodeficiency virus; neurodegenerative disorder; solid tumour; graft-versus-host diseas; glomerular disease, Lewy body disease, cancer; arthritis; arteriosclerosis; anti-HIV; neuroprotective; antiarthritic; immunosuppressive, antitumour; cytostatic; antiarteriosclerotic; ds; PCR primer

Homo sapiens

WO200168911-A2.

20-SEP-2001

15-MAR-2001; 2001WO-EP002945.

15-WAR-2000; 2000DE-01013847. 06-APR-2000; 2000DE-01019058. 07-APR-2000; 2000DE-01019173. 30-JUN-2000; 2000DE-01032529. 30-JUN-2000; 01-SEP-2000;

2000DE-01043826

(EPIG-)

Berlin Piepenbrock C, Olek A,

ĸ

WPI; 2001-602751/68

```
6640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAATTÄÄAATTAAATTTTAAATCCATCATÄAAÄATTÄTATAATAATAAAÄAÄAÄÄÄCÄ 6520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6519 АСПААССААТСАААТАААТАТАСАТАТААТТТТАСАТААСААТАТАТАСТАТАСААААА 6460
                                                                                                                                                                                                                                                                                                       Sequences AAS45296-AAS45520 represent chemically pretreated genomic DNA molecules associated with the cell cycle and specific PCR primers of the invention. The sequences are useful for detecting the methylation state of all CpG dinucleotides in a sequence and therefore for analysing associated diseases. By analysing cytosine methylations in the pretreated DNA, genetic analyor epigenetic parameters for the diagnosis and therapy of existing diseases or the predisposition to specific diseases can be ascertained. The parameters may be compared to another set of genetic and/or epigenetic parameters, the differences serving as basis for diagnosis and/or prognosis events which are disadvantageous to patients. The sequences of the invention are useful for the diagnosis and therapy of HIV infection, neurodegenerative disorders, graft-versus-host disease, aging, glomerular disease, Lewy body disease, arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              675 ATTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTCATATAATATAG 734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA transcription associated gene; peptide nucleic acid; PNA-oligomer; PNA, cytosine methylation state; SNP; retroviral infection; gene; ds; single nucleotide polymorphism; adenosine deaminase deficiency; cancer; viral infection; Sezary syndrome; haematological disorder; tuberculosis; immunological disorder; Werner syndrome; developmental disorder; psortasis; Rieger's syndrome; neurological disorder; erythropoiesis; neurodegenerative disorder; warnedenburg syndrome; niemann-Pick disease; myelodysplastic syndrome; myocardial infarction; hypertension; arthritis; angiogenesis; congenital heart disease; HDR syndrome; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6759 ATTATCCAAAAACAATCATTTTAATTTTATATTTTAAACACTATATATTTTAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAAATGTAAAAATTTTGAGGGGACAAATAAAAATATGAAAGTCTATTAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           915 TGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGGAGGATAGCAAGACAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCATTAGAATTCTATTTCCTTAGTTAATATGAGCTAGCCAGTTGGGAGATACACGAAAA
                                 Designing primers and probes for analyzing diseases associated with cytosine methylation state e.g. arthritis, cancer, aging, arteriosclerosis comprising fragments of chemically modified genes associated with cell cycle.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 7195 BP; 1873 A; 224 C; 1538 G; 3560 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA transcription associated complementary genomic DNA #20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches 156; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 63.4; DB 4; Length
Pred. No. 0.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          arteriosclerosis, solid tumours and cancers
                                                                                                                                                                                                                                    ID NO 30; 28pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABK28166 standard; DNA; 7195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6459 ACCCAACAAAATA 6447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   975 CCAAGCCAAGCTA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        al Similarity 50.2
157; Conservative
                                                                                                                                                                                                                                    Claim 1; SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABK28166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABK28166/
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MARKA MARKA MAKANA MAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
```

```
The invention relates to a nucleic acid, which comprises a segment of the chemically pretreated DNA of genes associated with DNA transcription from one of 346 sequences, and an oligomer, in particular an oligomucleotide or peptide nucleic acid (PNA) oligomer that hybridises to or is identical transcription. The set of oligomer probes are useful for detecting the transcription. The set of oligomer probes are useful for detecting the cytosine methylation state and/or single nucleic acids are useful for diagnosing or treating diseases associated with DNA. The nucleic acids are useful for diagnosing or treating diseases associated with DNA. The nucleic acids are useful for diagnosing or treating diseases associated with DNA. Transcription of particularly with the methylation status), e.g. adenosine deaminase deficiency, viral infection, retroviral infection, Sezary syndrome, haemarclogical disorders, psoriasis, Reiger's syndrome, neurological disorders, meurodegenerative disorders, warner syndrome, neurological disorders, meurodegenerative disorders, warner syndrome, infarction, hypertension, angiogenesis, erythropolesis, congenital heart disease, HDR syndrome, arthritis, polyglutamine disorders, solid tumours or cancer. Sequences ABK28127-ABK28472 represent DNA transcription associated genomic DNA molecules of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from the European Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6759 ATTATCCAAAAACAATCATTTTAATTAATTTTAATTTTTAAACACTATATATTTTAATT 6700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5579 ССАДАТТААЛАТТАДАТТТАДАТССАТСАТАДАДАЛАТТАТАДТАДТАДДАДАДАДАДАДС
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     854
                                                                                                                                                                                                                                                                                                                                                                                                                        New nucleic acids or oligomers, useful for diagnosing or treating diseases associated with DNA transcription, e.g. immunological disorders, Werner syndrome, psoriasis, myocardial infarction, solid tumors or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGGGAGATACACGAAAA 914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             675 ATTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTCATATAATATAG 734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6699 таттталалталаладсталалалалалаласутсталатталалалалалалалал
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAAATGTAAAAATTTTGAGGGGACAAATAAAAATATGAAAGTCTATTATTTAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 7195 BP; 1873 A; 224 C; 1538 G; 3560 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.6%; Score 63.4; DB 6; Length 7195; 50.2%; Pred. No. 0.18; ative 0; Mismatches 156; Indels 0,
polyglutamine disorder; solid túmour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; SEQ ID NO 40; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                 Berlin
                                                                                                                                                                                                            06-APR-2000; 2000DE-01019058.
07-APR-2000; 2000DE-01019173.
30-UUN-2000; 2000DE-01035529.
01-SEP-2000; 2000DE-01043826.
                                                                                                                                                                       06-APR-2001; 2001WO-EP003973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                 Piepenbrock C,
                                                                                                                                                                                                                                                                                                                           (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-090046/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 157; Conserv
                                                                                   WO200192565-A2.
                                           Unidentified
                                                                                                                               06-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                    olek A,
    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
The invention relates to a purified nucleic acid molecule associated with lactation or muscle and fat deposition (designated LMFD), derived from cattle, and the LMFD nucleic acid can specifically hybridise to a second nucleic acid molecule comprising an poscifically hybridise to a second appearing as ABX34836-ABX49947, or complements of them. Also included are (i) (1) a transformed cell having a nucleic acid comprising an LMFD nucleic acid linked to a promoter and a 3' non- translated sequence that the cell to cause termination of transcription and addition of functions in the cell to cause termination of transcription and addition of polyadenylated ribonuclectides to a 3' end of the mRNA molecule; and (2) determining a level or pattern of a molecule in a bovine cell or tissue comprising; (a) incubating a marker nucleic acid (comprising any complementary nucleic acid molecule obtained from the bovine cell or tissue, where hybridisation between the marker nucleic acid and the complementary nucleic acid molecule obtained from the bovine cell or tissue, where hybridisation between the marker nucleic acid, where complementary nucleic acid permits the detection of the molecule. The LMFD nucleic acid, where the detection of the complementary nucleic acid is predictive of the detection of the molecule. The LMFD nucleic acid is used for the molecule, and acid is predictive of the determining a level or pattern of a molecule in a bovine cell or tissue. The present sequence is one of the corpusation of constructs for use in cattle gene expression, or for genetically improving cattle. The present sequence is one of the corpusation of the present sequence is one of the present sequence is nucleic acids.
                                           915 TGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGAGAGGGATAGCAAGACAAAAAT 974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New nucleic acid associated with lactation, and muscle and fat deposition, useful for genome mapping, gene identification and analysis, cattle breeding, or for genetically improving cattle.
                                                                                                                                                                                                                                                                                                                                                                                                               Bovine; ss; EST; expressed sequence tag; lactation; LMFD; muscle deposition; fat deposition; genome mapping; gene identification; gene analysis; cattle breeding.
                                                                                                                                                                                                                                                                                                                                                                          Bovine EST associated with lactation/muscle/fat deposition #4584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Warren WC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 2; SEQ ID NO 4584; 245pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tao N,
                                                                                                                                                                                                                                             ABX39419 standard; cDNA; 416 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-SEP-2001; 2001US-00960352.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-JAN-1999; 99US-0115707P.
                                                                                                                                   6459 ACCCAACAAAATA 6447
                                                                                         975 CCAAGCCAAGCTA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Byatt JC, Mathialagan N,
                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BYAT/) BYATT J C. (MATH/) MATHIALAGAN N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-110599/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WARR/) WARREN W C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2002137139-A1.
                                                                                                                                                                                                                                                                                                                                  20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-SEP-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bos Taurus.
                                                                                                                                                                                                                                                                                         ABX39419;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAON/)
                                                                                                                                                                                                                                                                                           엄
                                                                                         ò
                                                                                                                              qq
```

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABX49849
                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABX49849/c
                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
  $$$$$$$$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                               염
                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                 ij,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Detecting and differentiating between hematopoietic cell proliferative disorders, comprises contacting a target nucleic acid with a reagent that distinguishes between methylated and non-methylated CpG dinucleotides.
                                                                                    603 TIGGICITIGCTITITGCGTCTTITGTTCAATTTTTCACGTGATTTTGTTGGTGAACACGCG 662
                                                                                                                         722
                                                                                                                                                               782
                                                                                                                                                                                                   838
                                                                                                                                                                                245 AAAAATITITAAATITITAAAGAAAATITITIAAAAATITITAAAATITITAAATITAAATITATAG 304
                                                                                                       64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΰ
                                                                                                                                           TTTTTTTATTTTTTTAAAAAAAAAAATTTAAATGAAAATAGAAAATAAAAATAAAAA
                                                                                                                                                                                                   AAAATCGAAAAATGAAATGTAAAAATTTGAGGGGGACAAATAAAATA----TGAAAGT
                                                                                                                                                                                                                      CTATTATTIAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTT
                                                                                                                         TACTIGAAACTTAITATAAATTACATAATTTTAIAAGITTCACTTCTTAIATATACTCA
                                                                                                                                                              Pelet
                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                       proliferation disorder related DNA seguence #240.
                                                                                                                                                                                                                                                                                                                                                                                                                         Human, haematopoietic cell proliferation disorder; cytostatic;
gene therapy, lymphocytic leukaemia; acute myelogenous leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Guetig D, Howe A, Mueller J;
P, Grabs G, Lesche R, Leu E;
Model F, Mueller V, Otto T, E
                                                                  4
                                             Length 416;
                                                                0; Mismatches 153; Indels
                            Sequence 416 BP; 223 A; 1 C; 14 G; 178 T; 0 U; 0 Other;
          seqdata.uspto.gov/sequence.html?DocID=20020137139
                                              Score 63.2; DB 7;
Pred. No. 0.19;
 electronic format from the USPTO web site:
                                                                                                                                                                                                                                                                                                305 AAGATATAAAAAAAAGATTTATTAAAA 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NO 240; 117pp; English
                                                                                                                                                                                                                                                                             GGGAGATACACGAAAATGTCATGAAA 924
                                                                                                                                                                                                                                                                                                                                                                                                                                           cytosine methylation state; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C, Braun A, Distler J,
Piepenbrock C, Adorjan
Lipscher E, Maier S,
I, Ziebarth H;
                                                                                                                                                                                                                                                                                                                                                떮
                                             4.6%;
51.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-MAR-2002; 2002WO-EP003401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-0278333P.
                                                                                                                                                                                                                                                                                                                                              ABZ10100 standard; DNA; 8056
                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                Matches 169; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (EPIG-) EPIGENOMICS AG.
                                                                                                                                                                                                                                                                                                                                                                                                       Haematopoietic cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-018942/01.
                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200277272-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                    16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Olek A, Pie
Lewin A, Li
Schwope I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berlin K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28;
                                                                                                                         663
                                                                                                                                           65
                                                                                                                                                              723
                                                                                                                                                                                                                                         839
                                                                                                                                                                                                                                                                                                                                                                ABZ10100;
                                                                                                      ហ
                                                                                                                                                                                                   783
                                                                                                                                                                                                                      185
                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                            RESULT 14
ABZ10100/c
8 X G G
                                                                                                                                        g
                                                                                                                                                                           à
                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                        8
                                                                                                                                                            ò
                                                                                                                                                                                               ò
                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                            ရ
```

```
integratiating detections a mechanical to detecting and associated with at least 1 gene and/or their regulatory regions in a susciated with at least 1 gene and/or their regulatory regions in a biological sample obtained from the subject with at least 1 reagent. Which distinguishes between methylated and non-methylated CpG dinncleotides within the target nucleic acid. ABZ0961 to ABZ0961 to ABZ1018 represent specifically claimed nucleotide sequences from the present invention. Oligonucleotides from the present invention can be used: for differentiating between healthy heamatopoietic cells and proliferative classored the present invention can be used: for discrete named and acute myelogenous leukaemia; as probes for determining the cytosine methylation state and/or single nucleotide polymorphisms (SNEs) of heamatopoietic cell proliferation disorder related sequences and their complements; and as primers for the amplification of haematopoietic cell proliferation disorder related but such asses, diagnosis, prognosis, treatment and/or monitoring of sequences, diagnosis, prognosis, treatment and/or monitoring of heamatopoietic cell proliferation between such also because the present method enables a highly specific classification of haematopoietic cell proliferative disorders. The present method enables a highly specific classification of haematopoietic cell proliferative disorders. The present method enables a highly specific classification of haematopoietic cell proliferative disorders. The present method enables a highly specific classification of haematopoietic cell proliferative disorders. The present method enables con highly specific classification of haematopoietic cell proliferative disorders. The present method enables a highly specific classification of haematopoietic cell proliferative disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ۲;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         muscle deposition; fat deposition; genome mapping; gene identification; gene analysis; cattle breeding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1643 TAATTTTACGATTCGTTTATTTCGATTTTTAAA-ATATAAAATTATAAATTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 TITTAAGGCAATTAAGCATGTTTGATAAATATATATATATTGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTATAAAGTTGATGATGCCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TAAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITITITIACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bovine EST associated with lactation/muscle/fat deposition #15014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 63.2; DB 7; Length 8056; Pred. No. 0.2; 0; Mismatches 138; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 8056 BP; 3711 A; 371 C; 371 G; 3603 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bovine; ss; EST; expressed sequence tag; lactation; LMFD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABX49849 standard; cDNA; 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-SEP-2001; 2001US-00960352.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0115707P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ch 4.6%;
[1 Similarity 53.0%;
157; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2002137139-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bos Taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
```

Warren WC;

Tao N,

```
The invention relates to a purified nucleic acid molecule associated with lactation or muscle and fat deposition (designated LMFD), derived from cattlet, and the LMFD nucleic acid can specifically Mybridise to a second nucleic acid molecule comprising any of 15112 nucleotide sequences, appearing as ABX34836-ABX49947, or complements of them. Also included are (1) a transformed cell having a nucleic acid comprising an LMFD nucleic acid comprising an LMFD nucleic acid linked to a promoter and a 3' non- translated sequence that functions in the cell to cause termination of transcription and addition of pulyadenylated ribonucleotides to a 3' end of the mRNA molecule; and (2) determining a level or pattern of a molecule in a bovine cell or tissue comprising: (a) incubating a marker nucleic acid (comprising any of the 15112 nucleic acid sequences or its complement or fragment) with a complementary nucleic acid molecule obtained from the bovine cell or tissue, where hybridisation between the marker nucleic acid and the complementary nucleic acid permits the detection of the molecule, where the detection of the complementary nucleic acid is predictive of the complementary nucleic acid is need for pattern of the molecule. The LMFD nucleic acid is predictive of the complementary nucleic acid is need for pattern of the molecule. The LMFD nucleic acid is need for pattern of the molecule.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     level or pattern of the molecule. The LMFD nucleic acid is used for determining a level or pattern of a molecule in a bovine cell or tissue. It is useful for genome mapping, gene identification and analysis, cattle breeding, preparation of constructs for use in cattle gene expression, or for genetically improving cattle. The present sequence is one of the 1512 bovine LMFD EST (expressed sequence tag) nucleic acids. Note: The present sequence was not shown in the specification but was obtained in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New nucleic acid associated with lactation, and muscle and fat deposition, useful for genome mapping, gene identification and analysis, cattle breeding, or for genetically improving cattle.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            electronic format from the USPTO web site:
segdata.uspto.gov/sequence.html?DocID=20020137139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 2; SEQ ID NO 15014; 245pp; English.
11-JAN-2000; 2000US-00480902.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Máthialagan N,
                                                                                                                          BYATT J C.
MATHIALAGAN N.
                                                                                                                                                                                                                                                            (TAON/) TAO N.
(WARR/) WARREN W C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-110599/10
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Byatt JC,
                                                                                                                          (BYAT/)
```

Sequence 375 BP; 143 A; 14 C; 24 G; 194 T; 0 U; 0 Other;

Query Match
4.6%; Score 62.2; DB 7; Length 375;
Best Local Similarity 53.0%; Pred. No. 0.28;
Matches 133; Conservative 0; Mismatches 118; Indels (

Gaps

. 0

798 619 GTCTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACGCGTACTTGAAACTTATTA 678 679 TAAATTACATATTTTATAAGTTTCACTTCTTATATAATACTCATATAATATAGGGTT 738 276 g ò g à g

799 AATGTAAAAATTTGAGGGGGGACAATAAAATATGAAAGTCTATTATTTAAATTTTCCAT 858 

36 AAAAATTTAT 26

859 TAGAATTCTAT 869

g

Search completed: February 24, 2004, 07:55:51 Job time : 711.304 secs

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
```

	3: 90-in: 4 5: 90-in: 4 6: 90-pat: 4 7: 90-pat: 4 9: 90-pat: 4 10: 90-pat: 4 11: 90-au: 4 13: 90-au: 4 14: 90-au: 4 16: em_fun: 4 17: em_hum: 4 18: em_nu: 4 22: em_ox: 4 23: em_pat: 4 24: em_pat: 4 25: em_pat: 4 26: em_ro: 4 27: em_pat: 4 28: em_pat: 4 28: em_pat: 4 29: em_pat: 4 20: em_ro: 4 20: em_r	ub seq length: ocessing: Minimu Maximu Listin	num DB seq length: 0 num DB seq length: 200000000	Searched: 3470272 segs, 21671516995 residues Total number of hits satisfying chosen parameters: 6940544	Scoring table: IDENTITY_NUC Gapop 10.0 , Gapext 1.0	Title: US-09-743-823-21 Perfect score: 1367 Sequence: 1 taaaataatctatacattaactacacacacactagaagaata 1367	Run on: February 24, 2004, 07:14:56; Search time 6100.31 Seconds (without alignments) 9712.612 Million cell updates/sec	OM nucleic - nucleic search, using sw model
--	--	--	--	---	--	---	---	---

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

			d			SUMMARIES	
Result	t. Sc. Sc	ore	Query Match	Length	DB	ID	.i
1		36	10	1 8	9	00647	
	1	2	93.	1428	9	AX840232	AX840232 Sequence
	12	ά.	ω.	9	ω	337	D16107 Glycine max
υ		ď		5615	0	396	AC116963 Dictyoste
		'n		364	m	707	AC117076 Dictyoste
υ		.i (		2924	o (	AC084128	AC084128 Homo sapi
,		٠,	•	900	n (		AF538U53 MOHOSIGA
ບເ		٠,	•	0 0	י ע		ACLIVORY HOW BADE
יטנ	nς	0 u		, ,	י רי	A144661	Aidezzzi Diosopiili
	, -		•	4 4	י רי		ACTIFGS DICTORE
		. 4		200	י ע		AX599046 Semience
0		. 4		5407	'n		. AC115598 Dictvoste
	4	, ,		00	m	AC116305 3	ion
-	ır	_		0103	σ	١_	Ношо
i m	, (c	΄ ດ		208	ی د	AX599046	Segmen
				44	۳,	AE014819	Plasmo
,	۰ ۵		•	2770	α	HASAH AND HA	מבמט מילטים המטונים
	o 0	• [	٠	7 6	) (·	A7117075	ACTIONS DISTROSTE
10	١. ٥	` -	٠	י מ נימ	۷ ر	0.00 E E E E	acternos oconomiza
		•		פקומ	0	00000000	ACOSBOO BOM
טט	l es			15.4	· (1	BX649407	BX649407 Danio rer
	7	0		1000	(1)	PEMAL7P1 00	AL844506 Plasmodiu
C)	4	o.		8682	m	١	AL034556 Plasmodiu
	ın	Ö		215	m	AC116977	AC116977 Dictyoste
Ü	9	σ,		7224	σ	AL731858	AL731858 Human DNA
	9 4	o,	٠	5263	m	AE014818	AE014818 Plasmodiu
O	8	9		5019	'n	AE014831	AE014831 Plasmodiu
1/1	σ	ω.	•	344	7	AC006280	AC006280 Plasmodiu
ריו	0	æ		0542	~1	AC005506	AC005506 Plasmodiu
0	1	68.8		5313	m	AE014846	AE014846 Plasmodiu
	N	æ	•	701	ω	DCAJ3139	AJ003139 Daucus ca
	м	æ.	•	5753	m		AC115682 Dictyoste
m U	4	ω.	•	1000	7	PFMAL6P1_10	Continuation (11 o
	ω.	œ	٠	8.	۸.	0	Continuation (8 of
(*)	<b>6</b>	ω,	٠	5239	m	AE014833	AE014833 Plasmodiu
		o,	٠	74 74 70 70	ט ע		ACULLY/9 Homo sapi
o o	20 (	٠.	٠	659	00 (	٩,	ccnaromy
	n c	٠,	•		٦,	١. ٥	CINCACION () O
4, 4		٠,	•	200	٦ ،	ABCGSSZI	3332 MISSINGS
	۱ د	٠,	•	7 0	<b>1</b> (	7170	AE TOWORD BERN
ט י	<b>3</b> C	٠,	•	2277	9 (	11632	6330 Digtwoor
	0.5	٠,	٠	2000	. c	2071	16330 Diction
)	r LO	67.4		253001	n m	AC110330 AE014834	d.
•	•				•		
						i	
						ALIGNMENTS	
RESULT	E E						
AXOUE		× 6	06477			1367 PR	11mear 14m 16m
DEFINITI	NOITI	Sed	Sequence	22 from		Patent W00004146.	
ACCES	NOISS	AXO			3		
VERSI	NON	AXO		1 GI:93	9946	0.4	
SOURC	SOURCE	Gly	cine ma	ax (soy)	oybean)		
ORC	SANISM	Gly	cine ma	×		٠	
		S EUK	aryota	Ξ.	.diplant Magnoli	ae, Streptophyta,	/ophy
		ros	rosids; et	eurosids	ĎΗ.	bales; Fabaceae;	deae; Phase
10000	D IV D	Gly '	cine.				
AUT	AUTHORS	HO HO	ogher.C.				
	!	) .					

us-09-743-823-21.rge

```
Glycine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    promoter
ORIGIN
                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                        1321
              841
                                     841
                                                                                                                                                                                1021
                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                            901
                                                                                 901
                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
AX840232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                  엄
                                                                               g
                                                                                                        \stackrel{>}{\circ}
                                                                                                                                셤
                                                                                                                                                     δ
                                                                                                                                                                        . 요
                                                                                                                                                                                                       \stackrel{>}{\sim}
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                    \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                          δ
                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \dot{\delta}
                                                                                                                                                                                            o;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                      78
                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                         9
A synthetic polynucleotide coding for human lactoferrin, vectors, cells and transgenic plants containing it
Patent: WO 0004146-A 22 27-JAN-2000;
FOGHER CORRADO (II); PLANTECHNO SRL (IT)
                                                                                                                      /note="sequence of the promoter of the gene coding for basic globulin"
                                                                                                                                                                                                                                                                                                                                                                              GTATAAAGTTGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAGGAAAAAAAGAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACGTGACCCCAACAATATAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCAATACTTTTTCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATAAAATCGAAAAAATGAAATGTAAAAATTTTGAGGGGGACAAATAAAATTGAAAGTCT
                                                                                                                                                                                                                                                                 TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                   TTTTTTTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                  TTTTAAGGCAATTAAGCATGTTTGATAAAATATATATATTGTTATAAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                                                        rrrraaggcaarraagcargrrrgaraaarararararraraaaaaracrrrrcaaaa
                                                                                                                                                                                                                                                                                                                                                                                                             TAGGAAAAAAAAATCAAAATTGAAAACATCATCGGTGGAGTCGAGAAGCCCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACGIGACCCAACAATATTAAAATAAGAGTTIGCTCTACAGTAAATGCGATACTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACGAGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAAAGCCGTTATGTTTAGGTTAGTTTTGCAACAGTTGAAGGCGCATCACTCAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTIGGICTITITGCGICTITIGITCAATTITICACGIGATITITGGIGAACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTIGGICITGCITTIGCGICITITGTICAATTITTCACGIGATITTGTIGGIGAACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATAAAATCGAAAAATGAAATGTAAAAATTTGAGGGGACAAATAAAATATGAAAGTCT
                                                                                                                                                                                                                   TAAAATAATCTATACATTAAAAATTTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                          TAAAATAATCATTAAAAATTTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                GTATAAAGTTGATGATGGCGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCAATACTTTTCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTACTTGAAACTTATTATAATTACATAATTTTATAAGTTTCACTTCTTATATAATACT
                                                                                                                                                                                            Gaps
                                                                                                                                                                                            ·,
                                                                                                                                                                    1367;
                                                                                                                                                                    Length
                                                                                                                                                                                            0; Indels
                                                                                                                                                                  Query Match 100.0%; Score 1367; DB 6; Best Local Similarity 100.0%; Pred. No. 2.6e-202; Matches 1367; Conservative 0; Mismatches 0;
                                                          1.1367
| Organism="Glycine max"
|/mol_type="unassigned DNA"
|/db_xref="taxon:3847"
| 1.1367
                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                181
                                                              source
                        JOURNAL
                                                 FEATURES
  TITLE
                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \frac{5}{2}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                  1020
                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PAT 16-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Glýcine max
Sukaryora, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots,
rosids, eurosids I, Fabales, Fabaceae, Papilionoideae, Phaseoleae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 TAAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITITITACCAGAAATCGTTAATATTGTTAAAATTTACCAACTAATTTATAAATTTTA
                                                                                                                          GAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGGAAATTAATGTAGTAGAGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141 TIAICCTTTCTTTGCTTCTGGAAATTTCACAAGCCTCAAACACGTCGACGTCCAATCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTAITTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGG
                                          ATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGG
                                                                                               GAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGGAT
                                                                                                                                                                                               961 AGCAAGACAAAATCCAAGCCAAGCTAGCTGCTCACGCGAACTCGATCCACACGTCCTTT
                                                                                                                                                                                                                            1021 ACAGAGITICAAACGGAIGAAAICIGCAIGCCAIGCAACIAAAAGCAIIGITCICAGCIGC
                                                                                                                                                                                                                                                                                                                                               acadadriricaaacgargaartcrocargecargcaacraaaagcarrerrercrocagcroc
                                                                                                                                                                                                                                                                                                                                                                                                                                                 caagiraccecreacacreaceaccerrigininicreeceatrecarginaacreaagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTATCCTTTCTTTGCTTCTGGAAATTTCACAAGCCTCAAACACGTCGACGTCCAATCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGACCAACACGCCAAAAGAAAAGAGAATCTCATCCCGTTCACACTTAGCCACTTAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGACCAACACGGCCAAAAGAAAAGAAATCTCATCCCGTTCACACTTAGCCACTTAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 TAAAATTAATCTATACATTAAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                  CAAGTACCCCTCACACTCACCAACCCTTTGTTTTTCTCCCCATTGCATGTTAACTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93.8%; Score 1282.8; DB 6; Length 1428; ilarity 95.6%; Pred. No. 2.8e-189; Conservative 0; Mismatches 2; Indels 61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATTCAATATTCAAACCTTGCTCTATACTACACACACTAGAAGAATA 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATTCAATATTCAAACCTTGCTCTATACTACACACACTAGAAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fogher, C. and Reggi, S.
Expression of lysosomal enzymes in plant seeds
Patent: WO 03073839-A 6 12-SEP-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Glycine max"
/mol_type="unassigned DNA"
/db_xref="taxon:3847"
1. _1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 6 from Patent W003073839.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
1. .1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AX840232.1 GI:39978632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glycine max (soybean)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 1365; Conserv
```

90 OX

2 d 2 d 2 d

S P  $\delta$ 

8 8 8

අි ඊ

OY 1140 TTTATCCTTTGCTTCTGGAAATTTCACAAGCCTCAAACAGTGGACGTCCAATCTT 1199  Db 1201 TTTATCCTTTCTTTGCTTCTGGAAATTTCACAAGCCTCCAACGTCGACGTCCAATCTT 1260  1201 TTTATCCTTTCTTTGCTTCTGGAAATTTCACAAGCCTCAAACGTCGACGTCCAATCTT 1260  OY 1206 GTGACCAACAGGCCAAAAGAAAAGAAAAGAAATTTCATCCGTTCACCTTAACCTTTAAG 1259  1261 GTGACCAAACGGCCAAAAGAAAAAAAGAAATTTCTCATCCGTTCACCTTTAGCCACTTAAAG 1320  OY 1260 CTAGCCAAACGGTGATCTTTCTCTATATTGTAGCTCTCTAACACACAC	RESULT 3 SOYSBG7S LOCUS SOYSBG7S SOYSBG7S SOYSBG7S SOYSBG7S DEFINITION Glycine max gene for basic 7S globulin, complete cds. ACCESSION D16107 VERSTON D16107.1 GI:434060 KEYNORDS SOURCE Glycine max (soybean) ORGANISM Glycine max (soybean) Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermarophyta, Magnoliophyta, eudicocyledons; core eudicocs;	rosids; eurosids I; Fabales; Fabaceae; Papillonoideae; Phaseoleae;  REFERENCE 1 AUTHORS Kagawa, H. and Hirano, H. TITLE Sequence of a cDNA encoding soybean basic 7S globulin JOURNAL Nucleic Acids Res. 17 (21), 8868 (1989) MEDLINE 90067863 PUBMED 2887227	Watanabe, Y. and Hirano, H.  Nucleotide sequence of the basic 7S globulin gene from Plant Physiol. 105 (3), 1019-1020 (1994) 94336768 8058830 3 (bases 1 to 3393) Watanabe, Y.	Control and sequence analysts of the basic 75 globuling gene soybean  AL Unpublished  CE 4 (bases 1 to 3393)  RS Watanabe, 7.  Direct Submission  AL Submitted (23-APR-1993) Yoshihiro Watanabe, National Instituted Arbolological Resources, Department of Molecular Biology; Rannondai Tsukha. Iparaki 305. Japan (Tel:81-298-38-7031.	Fax:81-298-38-7032) FEATURES Location/Qualifiers 1. 3393 /organism="Glycine max" /mol_type="genomic DNA" /dultitar="Miyagishirome" /docation="max" /docation="	/ Lissue_type="last" circlated" / Lissue_type="last" circlated" / Clone_lib="pSOY-LIB" / Clone_lib="pSOY-LIB" / Clone_lib="pSOY-LIB" / Standard_name="heat shock like element" / note="HSE" / pote="HSE" / char_signal 1254. 1257 TATA signal 1344. 1350 misc_feature 1369 / note="primary transcription start site"
61 TTTTTTACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTA 120  121 TTTTAAGGCAATTAAGCATGTTTGATAAATATATATTGTTATAAATTTATCAAA 180  121 TTTTAAGGCAATTAAGCATGTTTGATAAATATATATTGTTATAAATACTTTTCAAA 180  181 GTATAAAGTTGATGATGATGATGATAAATATATTTTAGTTCTTAGAATCTTTTCAAA 180  181 GTATAAAGTTGATGATGAGGGGGGGGGGGAATTATTTTAGTTCTAGGTTCGAATGCAAGTT 240  181 GTATAAAGTTGATGATGGCGGGGGGGGGGGAATTATTTTAGTTCTAGGTTCGAATGCAAGTT 240  241 GGTTTAGACATTTAGCCTTATTCTTTTTTTTAGACCAAAATAAAT	361 CACGTGACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTA 420 361 CACGTGACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTA 420 421 TTCAATACTTTTCCACTTCTAAAATCTTGGAGATTTGCACGTTAACTAATTAAGTGTT 480 421 TTCAATACTTTTTCCACTTCTAAAATCTTGGAGATTTGCACGGTTAACTAATTAAGTGTT 480 421 TTCAATACTTTTTCCACTTCTAAAAATCTTGGAGCGCCGTTAACTAATTAAGTGTT 480 481 ATATCCAACGGTCCTAAAAAAACTTGTGACCGTGCCTCACATTTCAACTTTTGGGCACCC 540 481 ATATCCAACGGTCCTAAAAAAACTTGTGACCGTGCCTCACATTTCAACTTTTGGGCACCC 540		660 GCGTACTTGAAACTTATAAAATTACATAATTTTATAAGTTTCACTTCTTATATAATAC 719	720 TCATATATATATAGGGTTTAGAATGCCAATTTTTAAAAAAGAATAAAAAAATAAAT	840 TATTATAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGGCCAGTTG 899	960 TAGCAAGACAAAAATCCAAGCCAAGCTAGCTCACGCGAACTCGATCCACGTCCTT 1019 1021 TAGCAAGACAAAAATCCAAGCTAGCTCACGCGAACTCGATCCACGCTCCTT 1080 1020 TACAGAGTTTCAAACGGTGAAATCTGCATGGATGAACTTAAAGCATTGTTCTCAGCTG 1079 1081 TACAGAGTTTCAAACGGATGAAATCTGCATGCATGAACTTAAAGCATTGTTCTCAGCTG 1140 1080 CCAAGTTCCACTCACAACCCTTTCTTCTCCCCATTGTTTTAACTCAAG 1139 1141 CCAAGTACCCCTCACACCCTTTGTTTTTCTCCCCATTGCATTAACTCAAG 1139 1141 CCAAGTACCCCTCACACCCTTTGTTTTTCTCCCCATTGCATTAACTCAAG 1200

2 4 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5

099 719 720

629

780 779 839 900 899 960 959

```
AC116963 S6152 bp DNA linear HTG 04-APR-2002 Dictyostelium discoideum chromosome 2 map 4790445-4846595 strain AX4, *** SEQUENCING IN PROGRESS *** AC116963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACI16963.1 GI:19920062
HIGH, HTGS PHAREZ.
Dictyostellum discoideum
Dictyostellum discoideum
Dictyostellum discoideum
Dictyostellum discoideum
Dictyostellum discoideum
Dictyostellum discoideum
Dictyostellum.
I (bases 1 to 56152)
Gloeckner,G., Eichinger,L., Szafranski,K., Pachebat,J., Dear,P.,
Gloeckner,G., Eichinger,L., Parra,G., April,J.F., Guigo,R., Kumpf,K.,
Tunggal,B., Cox,E., Quail,M.A., Platzer,M., Rosenthal,A. and
Noegel,A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141 CCAAGTACCCTCACACCTCACCACCTTTGTTTTTCTCCCCATTGCATGTTAACTCAAG
                         TACTTGGTCTTGCTTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACAC
                                                                                                GCGTACTTGAAACTTATAAATTACATAATTTATAAGTTTCACTTCTATATAATAC
                                                                                                                                                                                                                                                                ATAAAATCGAAAAAATGAAATGTAAAAATTTGAGGGGGACAATAAAATATGAAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                             901 TATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGACCAACACGGCCAAAAGAAAAGAATCTCATCCCGTTCACACTTAGCCACTTAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTAGCCAAACGGTGATCTTTCTCTATATATTGTAGCTCTCTAACACAACACAACACTACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTAGCCAAACGGTGATCTTTCTCTATATATTGTAGCTCTCTAACACAACACAACACTACCA
TACTTGGTCTTGCTTTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTTGTTGGTGAACAC
                                                                            GCGTACTTGAAACTTATTATAAATTACATAATTTTTATAAGTTTCACTTCTTATAATAC
                                                                                                                                                                                                  721 ITCAFTCAFGCATTTATAAFTFTGAFGAATAATAAAGAGTTTGTTAAAAATATATTATT
                                                                                                                                                                                                                                        780 AATAAAATCGAAAAAATGAAATGTAAAAATTTGAGGGGGACAAATAAAATATGAAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                       840 INTINIAMAITITCCATIAGAMITCTATITICCTIAGITAMIMIGAGCIAGCCAGTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGATACACGAAAATGTCATGAACAGTTGCATGTAGGGAAATTAATGTAGTAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAGCAAGACAAAATCCAAGCCAAGCTAGCTGCTCACGCGAACTCGATCCACACGTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAGCAAGACAAAAATCCAAGCCAAGCTAGCTGCTCACGCAACTCGATCCACACGTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1020 TACAGAGTTTCAAACGGATGAAATCTGCATGCAAGCAACTAAAGCATTGTTCTCAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081 TACAGAGTITICAAACGGATGAAATCTGCATGGCATGCAACTAAAGCATTGTTCTCAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGTACCCCTCACACTCACCCTTTGTTTTTCTCCCCATTGCATGTTAACTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTATCCTTTCTTTGCTTCTGGAAATTTTCACAAGCCTCAAACACGTCGACGTCCAATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1201 TITAICCTITCTITGCTICTGGAATTICACAAGCCTCAAACACGTCGACGTCCAATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTATTCAATATTCAAACCTTGCTCTATACTACACACACTAGAAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1381
009
                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                      601
                                                                               099
                                                                                                                     661
                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 4
AC116963/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                    8
                                                                                                          셤
                                                                                                                                                       8
                                                                                                                                                                                                엄
                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                          /note="Bg"
/codon_start=1
/codon_start=1
/evidence=not_experimental
/product="basic 7S globulin"
/product="basic 7S globulin"
/product="basic 7S globulin"
/product="basic 7S globulin"
/do_xref="doi:434061"
/do_xref="doi:434061"
/do_xref="doi:434061"
/do_xref="doi:434061"
/cranslation="MASILHYFLALSLSCSFLFFLSDSVTPTKPINLVVLPVQNDGST
/cranslation="MASILHYFLALSLSCSFLFFLSDSVTPTKPINLVVLPVQNDGST
/cranslation="MASILHYFLALSLSCSFLFFLSDSVTPTKPINLVVLPQCSTANTHQC
LSCPAASRPGCHKNTCGLMSTNPITQGYGLGELGEDVLAHTHQGSTQCLGPLYVTVPQ
LSCPAASRPGCHKNTCGLMSTNPITQGYGLGELGEDVLAHTHQGSTQCTFTCLSRYPTSKG
ALIFGDAPNNMKGCDNQDIFHDLAFTPLTTLQGEYNVRVNSIRTINGHSVFPLNKISS
TIVGSTSGGTMISTSTPHMVLQGSVQAFTPCLGVRNVGAQQVKSVAPPGLCFNSNKI
NAVYPDLARSRVGFSTSSLHSHGVKCADLFNFANA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAAAATAATCTATACATTAAAAAATTTGATTTTAAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAGGAAAAAAAGAAATCAAAATTGAAAACATCCGGTGGAGTGGAGTCGAGAGCCCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACGTGACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITTAAGGCAATTAAGCATGTTTGATAAAATATATATATTGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITITAAGGCAATTAAGCATGTTTGATAAAATATATATATATTGTTATAAATACTTTTCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTATAAAGTTGATGGCGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAGGAAAAAAAAAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACGTGACCCAACAATAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAAAGCCGT-TATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAAAATTTAGAATTTAAAAAATTTGATTTTAAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTATAAAGTTGATGATGGCGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCAATACTTTTCCACTTCTAAAATCTTGGAGATTTTGCACCGTTAACTAATTAAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCAATACTTTTTCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Length 3393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 93.8%; Score 1282.8; DB 8; Best Local Similarity 95.6%; Pred. No. 2.4e-189; Matches 1365; Conservative 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  globulin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="basic 78 g
/citation=[1]
2786. .2791
2806. .2811
                   /gene="SBg7S"
1429. .2712
/gene="SBg7S"
                                                                                                                                                                                                                                                                                                                                                              1429. .1500
/gene="SBg7S"
/citation=[1]
1501. .2709
/gene="SBg7S".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polyA_signal
polyA_signal
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                          mat_peptide
                                                                                                                                                                                                                                                                                                                                                                  sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
  gene
                                        CDS
```

ð g  $\delta$ g  $\delta$ 임 ð ПÞ

8 g ö g δ Ωp δ

Op

 $\delta$ g  $\stackrel{>}{\circ}$ 

1140

1139 1200 1199 1260 1259 1320 1319

1020 1019 1080 1079 1380

```
A linear INV 12-MAR-2003 map 5862124-6045772 strain
                                                                                                                                                                                                                                                  784 AAATCGAAAAAATGAAATGTAAAAATTTGAGGGGACAAATAAAATATGAAAGTCTATT 843
    ---TGATTTTGTTGGTGAACACGCGTAC 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence and analysis of chromosome 2 of Dictyostelium discoideum
Nature 418 (6893), 79-85 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dictyostellum discoideum
Dictyostellum discoideum
Bukaryota, Mycerczca, Dictyostellida, Dictyostellium.
1 (bases 1 to 183648)
Gloeckner, G., Eichinger, L., Szafranski, K., Pachebat, J., Dear, P., Lehmann, R., Baungart, C., Parra, G., April, J. F., Guigo, R., Kumpf, K.
Tunggal, B., Cox, E., Quail, M.A., Platzer, M., Rosenthal, A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (06-APR-2002) Genome Analysis, Institute of Molecular Biotechnology, Beutenberstr. 11, Jena 07745, Germany 3 (bases 1 to 183648)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (12-MAR-2003) Genome Analysis, Institute of Molecular Biotechnology, Beutenberstr. 11, Jena 07745, Germany On Mar 4, 2003 this sequence version replaced gi:20066249.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Molecular
                                                                                                                                                                                                           844 ATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGGGAG
                                                                                 TIGAAACTTAITATAAATTACATAATTTTATAAGTTTCACTTCTTATAAATACTCATAT
                                                                                                                                                                   904 ATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGGGGATAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS predictions from GeneID do not necessarily reflect true Further Information is available from IMB Jena, Department o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genome Analysis
(http://genome.imb-jena.de/dictyostellum/)
and the Univerity Colonge, Institute for Biochemistry I
(http://www.uni-koeln.de/dictyostellum/project.shtml
Funding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (04-MAR-2003) Genome Analysis, Institute of Biotechnology, Beutenberstr. 11, Jena 07745, Germany 4 (bases 1 to 183648)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The Dictyostelium Genome Sequencing Consortium 2 (bases 1 to 183648)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        183648 bp DNA Dictyostellum discoldeum chromosome 2 m AX4, complete sequence.
    TTTTGCGTCTTTTGTTCAATTTTTCACG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC117076.2 GI:28829496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35174 AGTGTAAAAA 35165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        964 AAGACAAAA 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Baumgart,C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baumgart,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       aumgart
                                                                                                                                                                   726
                                                                                   999
    613
                                         35534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
MEDLINE
PUBMED
REMARK
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 5
AC117076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                       g
                                                                                                                                                          6
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                     . 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \stackrel{>}{\circ}
                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36134 TACAAGATGAAATTTGTTTATTGCAAAATGAATTAAAAAATAATAATCAACAACAACAAC 36075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35834 BAAACAAAAAAAAAAAAAAAAAAAAATGTAAAATTAAAATAAAAACOAGAAGAATTTTTAAAACT 35775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (04-APR-2002) Genome Analysis, Institute of Molecular Biotechnology, Beutenberstr. 11, dena 07745, Germany CDS predictions from GeneID may contain errors. Further Information is available from IMB Jena, Department of Genome Analysis (http://genome.imb-jena.de/dictyostellum/) and the Univerity Colonge, Institute for Biochemistry I (http://www.uni-koeln.de/dictyostellum/) project.shtml
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACACCACGTGACCCAA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAAGCATGTTTGATAAAATATATATATTGTTATAAATACTTTTCAAAAGTATAAAGTTGA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAATCCGTTAATATTTGTTAAAATATTACCAACTAATTTTATAAATTTTTAAGGCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTTTAGGTTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTACTTGGTCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTTATATCCAACGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTAAAAAACTTGTGTGTGCGTGCCTCACATTTCAACTTTGCGCACCCTGAAAGCCGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAGCCTTATTCTTTTTTTTAACCAAAATAAATGTAAATGGAAAACCTTTAGGAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGATGGCGTGGTAGATTATTTAGTTCTAGGTTCGAATGCAAGTTGGTTTAGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                          Agency: Deutsche Forschungsgemeinschaft (DFG).

* NOTE: This is a "working draft" sequence.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 56152;
    and Analysis of Chromosome 2 of Dictyostelium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches 531; Indels
                                         Dictyostelium Genome Sequencing Consortium (bases 1 to 56152)
                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Dictyostelium discoideum"
|mol_type="genomic DNA"
|strain="AX4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 82.4; DB 2;
Pred. No. 0.0011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'db_xref="taxon:44689"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'map="4790445-4846595"
                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                          Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                        Jnpublished
The Dictyos
                                                                                   Baumgart, C.
                                                                                                                                                                                                                                                                      Funding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 430;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          553
                                                                                 AUTHORS
TITLE
JOURNAL
TITLE
JOURNAL
                                         REMARK
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
```

g ò qq à d  $\delta$ d  $\delta$ qq ò g  $\stackrel{>}{\circ}$ g ò d  $\delta$ 엄  $\delta$  φ

Page

FEATURES

SOD

```
/codon_start=1
/product="similar to Homo sapiens (Human)".
/protein_id="MAOS5035.1."
/db_xref="GI:28829504".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ELPNELSTSNNELYLEKLKGLIINNMAVKGLL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GSLFKYRFTNGIKGNVAFKFQG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .13596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VGFESTERESESSESSULTAINTOSTRANDS THRRUGGES TO WAS AN INCOME.

VGFESTERESESSESSULTAINTOSTRAND THRRUGGESTERESTRANDS.

VGFESTERESESSESSULTAINTOSTRAND TO THRRUGGESTERESTRANDIALITY

VGFESTERESTRANDSPYLSYLEYSTRANDIANTY TO SKREPSLIABLITOCHLEST

KHPCTFHLTREISTRANDSPYLSYRGVULLIANTRISATGFPONHFLVTFLKSNDOW

NKLOOLLISDTKALTPNYGDNSMELICFGSSFAKSIGFVONEDSVORKESKKUVLVD

RFOTGGNSSFCRNSPYLSABELAOIEKELKEEESNOKKKKONDOKKKK"

COMPLEMENT (join (4262 . 710, 7204 . 7873))

//OCCHE (join (4262 . 710, 7204 . 7873))

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="G1:28829497"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NDSNI LVSCSSDSTIKIMNTDSERCYNSLKFHDDYVKYLAYAPKANY FASGGLDSHIK
IMDLSICSISQSFSIDNINNINHNSSSNYNQPCDTSILKHITNNSQPTNKINNCNINV
VNGNINISTNINNINNISSSSNINNINNINNINNCQTNTHENTAETSDSGGSKDDNQLSSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLAIAQDASFVVSGSTERAIRGWDVRSGQKIFKLKGHTDNIRSILLNDNSTRCLSASS
OGTVRLWDLGCQCCDDAHTDSWTATATNDSSRHFFSGARGMUHTFTDLKTHQSR
LVSRENBETLKILLNODDQSIWVSTTSSTIRNYGLSNFYDKNOSIDNNTTNCGSISSE
ILYNNNNNNNNNNNNNNNNNNNNNNNNNREKLSTINEDSNGLQVDEPKIKIQGRAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IIKNQVLANRRQVLTKDNDNNVQLWDITKGKEIESFGKVDFDKKLEEFNEVISIPKWF
VDKKTGSLFISLESPLCFSADAYQYRGLTFPEDSLINIESESILXGESILSFKMIMOXNL
LQLNATTRKDNELMFSNDSVNSSLSSNTSGDNRNNNYRNNNNNANGLQXSSSSS
SIVSTNSTTFPNSGRPLIEIMAKKSIFHLPSNTDVVISDETSGLVLYRSRIEEFTGREO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IKI I DWLYNCLETSAI PI KRDNQKI SFSVEVNEKI PQNLNAPYY I QVRKI CDHVLNNF
FINDNNNNNNSSVNNDLPKGEEFPEI CLQNKI LLPHYTLGTVKSFFWKQNSTI PLTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /translation="MYEYYSTGKIRSLPQQVDSNGINSKPMNSSPSTPIPNNNNNNNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KKY DDDNNNNNYNNNNKKAN SNDNNNDNNNLNKKF SPMFGSGSYLVGKSGGEGISIY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .11433)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /map="S862124-6045772"
join(1392. .1842,2125. .3301,3402. .3745,3824. .4050)
/note="GeneID exon scores (in order of location ranges):
25.12, 98.12, 28.07, 17.04 - GSCJ_ID dd_03066"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RVKAQYINETELVKYLKQLSLNHNKK"

join(8549 ... 9647,9798 ... 10000, 10097 ... 10480, 10609 ... 11433
/note="solid library and solid library an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               t="similar to Plasmodium falciparum. Hypothetical
Deutsche Forschungsgemeinschaft (DFG).
Location/Qualifiers
                                                                                                                                                                                                                                                                organism="Dictyostelium discoideum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /protein_id="AAO52030.1"
/db_xref="G1:28829498"
                                                                                                                                                                                                                                                                                                                                       /mol_type="genomic DNA"
/strain="AX4"
/db_xref="taxon:44689"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /chromosome="2
                                                                                                                                                                                 .183648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein"
                          Agency :
```

CDS

join(16551. 16901\_16979. 17513,17612. 17745,17816. .24169) /note="GeneID exon scores (in order of location ranges): 37.50, 38.13, 9.43, 706.91 - GSCJ\_ID dd\_02501" KQSKYNDGYDDENADYIVRIGEVFVDRFEIISSLGKGSFGQVVKAFDSVLKEYVAIKI IKNKVPFYNQALIEIRLLELMNKDPEDQYKIIKLKHFKRRHLCIVTELLSYNLYD LLRYTHFHGYSLNLKKFAHQILTALFFMSTPEVDYIHCDLKPENILLENPKRSAIKI IDFGSSCHSNERMYKYRFYRSPEILLELENSYSIDMWSLGCILVEMHYGEPLFSG QNEQDQLTKIIEVLDLPPSHAIDSSFRAKEFTKDFINSTYQLKKNEKLKTNVGEFCKK KLSEIIGVETGGPQSRRKNEPGHALVDYLKFLDLIEKMLIYDDQKRITPLEALQHSFF 15668. .16066
/note="GenolDexon scores" (in order of location ranges):
0.30 - GenolDexon scores (in order of location ranges):
/codon start=1
/product="hypothetical protein"
/protein | d= "AAOS2034.1"
/db\_xref="GI:28829503"
/translation="wseQSEQAEQAESPIHTVYLINPTNSVENDTFRISFFDGVLYWA Protein\_id="AAO52033.1" 'db\_xref="GI:28829502" 'translation="MNATQEKIDQVKNNIKGEEVDISNESKNIYFNPDFAKKVYKISD AFVSIINVIRRGGILÄENIGKEVLDYCIRFISEIKSLTDSECSVLLSKPFTEQLYQSI FYSLVEMTDKYPEKLIKVIEVLKOPICVSPVIKNSEETRNSLFTCIONLITNEYKKER GVENCKSLYVTSLNTLHTLYTYTYNDNLSNGTJOQISSTNTTPSSSSTLTTSNSNNN TNEKSPRINSANINSNNNNNNGTQIQSLKNIIIIGKITCSLNDLGIIEITKENFIS RLAFPPSEIDNLILFQLTDIGLLEHPIITDSIVAMIPSLEKKICKDSNQGLITNITDI /tränslation="MSSSLSLAYNNNSSIPSSVLLQQQQQQQQQQQQQQQPTSSGYS QQCLVPDIFKFSAKVQLAETISYLTPVPVESVEILIKSCCSLLPNKQYIDIQQNDPSI KRIFDLNPSLFSTMISIRAQESVIALSHFYKCSNGNADKRILPILKSFLVYLTYFGNN HSINFIGFHGGYQTVSTTGIÑYRFHGNDDHYQVEYICKNTPSSVFKYLREEIQSLDGF HQHVLPTGTGIILKSEISALRLRVVARNI" SGSSGNQLNQSSQSNSSVTQQSQIFSQSNGLSVPVGIHQNDIQNSQNFTYYLLNQLAI LSHISTEASDBIVPVFLDFFNQIIKNEQVSIIYGTLHALADKNNTFNFNNDQLSKVIN SIELIVENNSNTKYNQKKVFCQAFERITYLNELEKDVTRIYRNVFPFTTSSIASTDNE KRIFDDQQILIAATKSISAFSESKKPESFNEIKI"
join(13823. .13936,14006. .14125)
/note="GeneID exon scores (in order of location ranges):
111, 600n scart=1
/product="hypothetical protein"

844 AITTAAAITTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGTTGGGAG 903

3525 AAAATTAAAAAAAAAAATAACAGACAATAAATTAAACAAAAAAATTAAAAAATTTAAAAATT

964 AAGACAAAA 973 | | | | | | | | | | 35312 AGTGTAAAA 35321

RESULT 6 AC084128/c

ATACACGAAAATGTCATGAAACAGTTGCATGTAGGGAAATTAATGTAGTAGGGATAGC

904

8 8

ઠે

g

```
34471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34352 TACAAGATGAAATTTGTTTATTGCAAAATGAATTAAAAAATAATAATAATCAACAACAAC 34411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34592 АТАТАТАТТАТТАТТАТАТАААА ЗАБЕТТАВ ЗАБЕТАТАВ ЗАБЕТ
132
                                                                                                                                                                                                                                                                                                                                                                                        192
                                                                                                                                                                                                                                                                                                                                                                                                                                                        252
                                                                                                                                                                                                                                                            72
                                                                                                                                                                                                                                                                                                                           73 AAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTATTAAGGCAAT
                                                                                                                                                                                                                                                                                                                                                        133 TAAGCATGTTTGATAAAATATATATATTGTTATAAATACTTTTCAAAAGTATAAAGTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                        253 TAGCCTTATTCTTTTTCTAACCAAAATAAATGTAAATGGAAAAACCTTTAGGAAAAAAA
                                                                                                                                                                                                                                                            13 TACATTAAAAAATTTGAFTTTTAAAATTTTAGAAATTCATGATTTTTATTTTTTACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        193 TGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTGGTTTAGACATT
                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                              6
                                                                                                                                                                                               Length 183648;
                                                                                                                                                                                                                            0; Mismatches 531; Indels
                                                                                                                                                                                               Score 82.4; DB 3;
Pred. No. 0.00089;
                                                                                                                                                                                            6.0%;
nilarity 44.3%;
Conservative 0
                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                            Matches 430;
                                                                                                                                                                                               Query Match
Best Local S
```

ACOSA128 ACOSA128 Incomposer 8, clone CTD-3118D11, complete sequence. ACCESSION ACCESS

g

9 2 9 3

ò

493 CCTAAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCCTGAAAGCCGTTA

433 TCCACTICTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTTATATACAACGGT 492

612

552

313 GAAATCAAAATTGAAAACATCCGGTGGAGTCGAGAAGCCCACACCCACGTGACCAA 372

432

373 CAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTATTCAATACTTTT

TTTTGCGTCTTTTTGATTTTTCACG-----TGATTTTGTTGGTGAACACGCGTAC 665

613

qq

999

ò

TGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTACTTGGTCTTGC

TITTTTTTTTTTTTTAATTTCTTTTTTTTTTTCTTTTTCCGATTTCTTTTTTCGCAAAAAC 35071

TIGAAACTIAITAIAAAITACAIAAITITIAIAAGITICACTICITAIAIAAATACICAIAI 725

AAATCGAAAAATGAAATGTAAAATTTTGAGGGGGACAAATAAAATATGAAAGTCTATT

784

AATATATAGGGTTTAGAATG--CCAATTTTTAAAAAAAGAATAAAAAAAATAAATA

726

8 8

35012

셤

843

us-09-743-823-21.rge

```
Query Match 6.0%; Score 81.6; DB 9; Length 129240; Best Local Similarity 44.1%; Pred. No. 0.0013; Matches 383; Conservative 0; Mismatches 484; Indels 1;
                        qual SNGL region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ily="MER5A"
t (1900)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         family="LiPA7"
=ment (227-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="Alusg1"
. 24922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (15056. .15245)
y="AluJb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family="AluJb"
ement(2407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family="AluJb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family="L2"
ement(12668. .12878)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ement(16162. .16386)
family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . .19430)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .19643)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .19829)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rpt_family="AT_rich"
omplement(24934, .25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ly="MER41A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eamily="MER1A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28099. .28243
/rpt_family="Alusx"
29591. .29611
                                                                                                            rpt_family="L1MDa"
                                                                                                                                               rpt_family="L1MD2"
                                                                                                                                                                                                                                                                                                                        family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ly="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        v="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="AluSx"
                                                                  rpt_family="L1MDa"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "AluJb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 family="AluSx"
                                                                                                                                                                                                                                                                                                                                                             family="MIR3"
                                                                                                                                                                        rpt_family="MIR"
136. 821
                                                                                                                                                                                                                                    .pt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                     fpt family="MIR"
omplement(11116.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mplement (19480.
                                                                                                                                                                                                                                                                rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nplement (19744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ement (19376
                                                                                                                                                                                                                                                                                                                                         omplement (10188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ement (18862
                                                                                                                                                                                                                                                                                                                                                                                   .11002
                                              repeat_region
                                                                                                                                repeat_region
                                                                                          repeat_region
                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
        unsure
                                                                                                                   S. Barren, B., Nusbaun, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barren, B., Nusbaun, C., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chazaro, B., Choepel, Y., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Choepel, Y., Collymore, A., Gook, A., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardas, S., Gord, S., Graham, L., Grand. Pierre, N., Hagos, B., Horton, L., Hulme, W., Illev, I., Johnson, R., Lindblad-Toh, K., Lindblad-Toh, K., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Matthews, C., MacLean, C., Macdonald, P., Major, J., Matthews, C., Murphy, T., Naylor, J., Meneus, L., Mihova, T., Menga, V., Murphy, T., Naylor, J., Nayon, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Rise, C., Rogov, P., Roy, A., Schauer, S., Schupback, R., Scaman, S., Severy, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Talamas, J., Tesfave, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Zimmer, A. and Zody, M., Zembek, L., Zimmer, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Roy, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J. Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct Submission
                                                           Submitted (02-JUN-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA 4 (bases 1 to 129240)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Web site: http://www-seq.wi.mit.edu
Contact: sequence_submissions@genome.wi.mit.edu
______ Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="single clone coverage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone="CTD-3118D11"
clone_lib="CITD2 Human BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /rpt_family="LlMpa"
complement(3114. 4017)
/rpt_family="AluSg"
3739. .3748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Homo sapiens'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="genomic_DNA"
/db_xref="taxon:9606"
/chromosome="8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         family="Alusq"
.2593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center project name: L11383
Center clone name: 3118_D_11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rpt_family="Charlie2"
omplement(2598. .3451)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rpt_family="AluSg/x"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt_family="AT_rich"
complement(1619. .189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rpt_family="L1MA4A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rpt_family="AluSc"
omplement(1897..21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          family="L1MC3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               opt_family="AluJb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center code: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "8"=qEm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unsure
                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                        REFERENCE
                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
```

σ

```
/cransi_cable=4
/cransi_cable=4
/product="Nable=4
/product="Nable dehydrogenase subunit 4L"
/product="Nable dehydrogenase subunit 4L"
/brotein id="AAN28335.1"
/db_xref="G1:2334059"
/translation="mwnrulplrALDFIGILILILPFNNELNIKKGKQIALGTSILT
LLBSLRLWFHFDYSTSKFQYILKLNWINDELTSNSWNIVLGIDGISLVFIILTTLLIP
LCLSSNDSVKILVKGYLISFLVIELLIGVFTILDIRGFYTLEGGVLIPMYLIGIN
GSREQKITAGGYZFFYTLIGSVLMLIGILXVSTSGGTTDXLTLGGYEIDPTAQKYLFL
AFFALLWYIEVFFPHIWLDQAHVARDAVGSVSHMCLIXLGGGYFETFILADIRGS
HYFALVWILGGUANITAGITTLAGTDLKRIIASSSVSHMCLVSLGFFFTLANIAVF
LGCNFYGFELCLAIFEVWTYALIASLGTILSACYSLFLYRRVCFGSFSTYLSNNSY
HLLSIKUVSRREFFVLFFLVILTILLGVYPHPIFDLINISVINLTTFL"
7066. 7089
7066. TORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                706....7089
706....7089
706....7089
7386...7786
7386...7786
796....7786
796....7786
796....7786
796....7786
796....7786
796....7786
796....7786
796....7786
796....7786
796....7786
796....7786
796....7786
797....7786
797....7786
797....7786
797....7786
797....7786
797....7786
797....7786
797....7878
797....7878
797.....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
797....7878
Bullerwell, C.E., Burger, G. and Lang, B.F.
A novel motif for identifying rps3 homologs in fungal mitochondrial genomes
                                                                                                                                                                                                                                                                                                                                Jang, F. B. and Bullerwell, C. Direct Submission Montreal, C. Submission Submitted (06-UN-2000) Biochimie, Universite de Montreal, 2900 Boul. Edouard Montpetit, Montreal, QUE H3C 3J7, Canada (16-UN-2000) Biochimie, Universite de Montreal, 2900 birect Submission Burger, G. and Lang, B.F. Direct Submission Burger, G. and Lang, B.F. Direct Submission Burger, G. and Lang, B.F. Direct Submission Burger, G. 2002 biochimie, Universite de Montreal, 2900, Submitted (10-AUG-2002) Biochimie, Universite de Montreal, 2900, Boul. Edouard-Montpetit, Montreal, Quebec H3T 1J4, Canada On Sep 29, 2002 this sequence version replaced gi:9966505.
                                                                                                                                                 2 (Dases 1 to 76568)
Lang, B.F., O'Kelly, C., Nerad, T., Gray, M.W. and Burger, G. The closest unicellular relatives of animals
Curr. Biol. 12 (20), 1773-1778 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. . 76568
/organism="Monosiga brevicollis"
/organism="Monosiga brevicollis"
/organism="Monosiga brevicollis"
/organism="Monosiga brevicollis"
/organism="MTCC 50154"
/db_xref="MTCC:50154"
/db_xref="MTCC:50154"
/db_xref="MTCC:50154"
/db_xref="MTCC:50154"
/db_xref="MTCC:50154"
/db_xref="MTCC:50154"
/dcme="mnl"
/gene="mnl"
                                                                                 Frends Biochem. Sci. 25 (8), 363-365 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4627. .6123
/gene="nad4"
/EC_number="1.6.5.3"
/codon_start=1
/transT_table=4
                                                                                                                                           10916154
                                                                                                                                                                                                                                                                                                                 12401173
                                                                              JOURNAL
MEDLINE
PUBMED
PUBMED
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOS
                                                                                                                                                                                              32951 TATATTATATATATATATTATATATATATATATAAGATATAAAGATATATATATATATATA
                                                                                                                                                                                                                                                                                                                                                                                                                           32711 AATATATATTTTATATATATATATATATAAGTATATAAATAAATAAAATTATATAAAA 32712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u> 1883 тадагттатататаладын 1888 ж. 1</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MBREV 76568 bp DNA circular INV 14-FEB-2003
Monosiga brevicollis mitochondrion, complete genome.
AF538053 AF275274
AF538053.1 GI:23344058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                           122
                                                                                                                                                                                                                                                       123 TTAAGGCAATTAAGCATGTTTGATAAAATATATATATTGTTATAAATACTTTTCAAAAGT 182
                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            782 TAAAATCGAAAAAATGAAATGTAAAAATTTGAGGGGGACAAATAAAATATGAAAGTCTA 841
                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                602 CTTGGTCTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTTGTTGGTGACACACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             662 GTACTIGAAACTTATATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTC
                                                                                                                                        63 ITITIACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTATT
                                                                                                                                                                                                                                                                                                                                                                       ATAAAGTTGATGGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 363 CGTGACCCAACAATATAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                423 CA-ATACTITITICCACTICTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                542 GAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAATAATCTATAAAAATTTTGATTTTAAAATTTCATGATTTTAGAAATTCATGATTTTATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243 ITTAGACATTTAGCCTTATTCTTTTTTTTTTAAATAAATGTAAATGGAAAACCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    303 GGAAAAAAAAAGAATCAAAATTGAAAACGTCGTCGGTGGAGTCGAGAGCCCACACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                482 TATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mitochondrion Monosiga brevicollis
Monosiga brevicollis
Eukaryota: Choanoflagellida; Codonosigidae; Monosiga.
1 (bases 64800 to 65249)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32171 ATATATATATATATATATATATTATAT 32144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         842 THATTTAAATTTTCCATTAGAATTCTAT 869
                                                                                                                                                                                                                                                                                                                                                                       183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                           à
                                                                     g
                                                                                                                              \delta
                                                                                                                                                                                  g
                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
71632 TITATAATITITIAGITITTATIGATAAAATAAGAAATCTATTATAAAATTATAAATAA 71691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71512 TAAGGAATATTATATATATATATATATATCTCTCTTTTTAAAGGGGGAATAATATTAA 71571
      /codon start=1
/transl_table=4
/product=ribosomal protein S12"
/protein id="AAN28341.1"
/db_xref="G1:23344065"
/translation="MTTINGEKKNIRKRKTRITAGSKFLKNGGLINPQLKGVCIRVL
/translation="MTTINGEKKNIRKRKTRITAGSKFLKNGGLINPQLKGVCIRVL
/TREPKKPNSAQRKIARVKLYNGLIVDAFIPGEGHSLQEHGIVLIRGGRVKDLFGIKLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation="minkrpkrtkyskyokkyokurinsnlpvnksnlfoknlenkdfryll
iambplrltashiaagelaikrelnikfkssnlsitdiegnkinikgdynlhvpphlp
vtkkpaevrmgkgkgsidymmtririgspifelkfknaninnnkniqircfniakqif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /producT="NADH dehydrogenase subunit 5"
/producT="NADH dehydrogenase subunit 5"
/brotein dis="NAN289343.1"
/db_xref=="dis="NAYLIDFLPILSAVIAGLGGRFIGTKGAGIITTICIMITSLFSW"
/translation="MYYLIDFLPILSAVIAGLGGRFIGTKGAGIITTICIMITSLFSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , AEYEVGINMSPVYIPLMKWINVGTYLDMSLGLMYDSLTVTMLILVTTVSSLVHLYSI
SYMDGDPHLPRFMSYLSLFTFSMVMLVTADSYLLCVWGWESVGICSYLLINFWYTRIQ
ANKSAIKAMVMNRVGDMTLFLGMFAIFVVFNTLDYSTIFSSTYKLSDYTIFFNYEIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALTIISILLELGAVGKSAQLGLHTWLPDAMEGPTPVSALIHAATWVTAGVFLLIRSSP
IIBYAPKALVIITIVGTLTALFAASIGLVQNDIKKVIAYSTCSQLGYMVLACGLSNYN
VALFHLFTHGFFKALLFLGAGSVIHAMGDEQDMRKLGGLIKRIPYTYSMMLIGSLSLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GFPFLAGFYSKDAILELAYGKYTIDGTFAHLLGTLAAGMTAYYSIRLIYMTFLSDTNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  124 TAAGGCAATTAAGCATGTTTGATAAATATATATATTGTTATAAATACTTTTCAAAAGTA 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          304 GAAAAAAAAAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACCCAC 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          244 ITAGACATTTAGCCTTATTCTTTTTCTAACCAAAATGAAATGTAAATGGAAAACCTTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAAAGTTGATGATGCCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 AATAATCTATACATTAAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITIACCAGAAATCCGTTAATATIGTTAAAATATTACCAACTAATTTATAAATTTTATATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 3; Length 76568;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.7%; Score 77.4; DB 3; 1
44.8%; Pred. No. 0.0062;
tive 0; Mismatches 466;
                                                                                                                                                                                                                                                                                                                                                                                                                                       product="ribosomal protein L16"
protein id="AAN28342.1"
db_xref="G1:23344066"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , ....\19569. .20318, 22134.
gene="nad5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EC number="1.6.5.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /product="tRNA-Arg"
19569. .23450
/gene="nad5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DVVNSKLGIKTKIVKVS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               codon_start=1
transl_table=4
                                                                                                                                                                                                                                                                                                                                                                                                                    table=4
                                                                                                                                                                                                                                                        17571. .18104
/gene="rpl16"
17571. .18104
/gene="rpl16"
                                                                                                                                                                                                                                                                                                                                                                                    codon_start=1
transl_table='
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .9351. .19422
/gene="trnR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .9351. .19422
'gene="trnR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
Matches 382, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      trna
                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ДQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /transT_table=4
/product="nAbH dehydrogenase subunit 11"
/procein id="AAAU28340.1"
/procein id="AAAU28340.1"
/db_xref="GI:23344064"
/db_x
                                                                                                            /transl_table=4
/product= riboscomal protein S8"
/protein id="AAN28337.1"
/brotein id="AAN28337.1"
/db xref="G1:2344061"
/translation="MNELISKINNWINYRKMLTCQFNWDNYSILKYLKSEGVIKLLEI
NKNNNNQKIINFLINDKLGKLGTNVPLKPISKPGRKVYISNKEILSMSNTKKGFTINT
SKIGIKTYSNLSSHKIYLLRTSSNNLQLLNNKGIITQBEAIKNNVGGELLLVVKFQ"
10529. .11287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /procein id="AAJ28339.1"
/db_xref="G1:23344063"
/db_xref="G1:23344063"
/translation="MPQLSIEFPVSQYFWFLVILIVPYLFTISNLVPRIAEIKKTRKK
/translation="MPQLSIEFPVSQYFWFLVILIVPYLFTISNLVPRIAEIKKTRKK
CAPAESIVTISSDIQTLANFNPAKQINVINNSVSNNHINTIVSSFENANKNWIKK"
13729. .14760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   codon start=1
transI table=4
product="ATP synthase F0 subunit 8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /codon start=1
/transl table=4
/product="ATP synthase F0 subunit 6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /LFITIIEMAVAVIQAYVFSLLTAIYISESIHLH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="nad1"
13729 .14760
/gene="nad1"
/EC number="1.6.5.3"
/codon start=1
/transl_table=4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        number="3.6.1.34"
                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="atp6"
/EC_number="3.6.1.34"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    product="tRNA-Ser"
5742. .15816
gene="trnH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .5143. .15214
'gene="trnT"
'product="tRNA-Thr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "tRNA-His"
                                                                                      codon_start=1
trans1_table=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5742. .15816
gene="trnH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1668. .11967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .16500
                                                                                                                                                                                                                                                                                                                                                                                       .0529. .11287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1668. .11967
gene="atp8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15143. .15214
/gene="trnT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="atp8"
/EC number=""
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene="trns"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5536. .1561
gene="trnS"
                            3034. .8513
/gene="rps8"
dene="rps8"
                                                                                                                                                                                                                                                                                                                                                           gene="atp6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SKFINLLIY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          product='
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                            CDS
```

us-09-743-823-21.rge

ò g ò g  $\stackrel{>}{\circ}$ 임 ò 엄

g  $\delta$ 

ò

a

d  $\delta$ 

```
Signator, S. Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Bouknaller, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Boukgalter, B., Erown, A., Camarata, J., Campoplano, A., Chang, J., Colagelo, M., Collins, S., Collymore, A., Cook, A., Cook, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farrois, P., Ferrelara, P., Fitzhugh, W., Gagel, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Grand, P., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Karls, C., Lancque, K., Landarares, R., Landers, T., Lehcozky, J., Levine, R., Lindblad, Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarth, M., McEwan, P., McKernan, K., Maldrim, J., Meneus, L., Minosan, C., Nachonell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Roback, M., Staley, R., Schauer, S., Schupback, R., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Viel, R., Vo, A., Tison, B., Wu, X., Myman, D., Ye, Wu, J., Yoo, M., Tison, B., Wu, X., Myman, D., Ye, Wu, J., Young, G., Zainoun, J., Zambek, L., Zimmer, A. and Zody, M., Van, Young, M., Lander, J., Changer, J., Man, M., Man, J., Man, J., Man, M., Man, J., Man, M., Man, J., Man, M., Man, J., Kan, M., Man, J., Ye, Wu, J., Young, G., Wall, M., Man, M., Man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission

Direct Submission

Direct Submission

Burch, 320.Charles Street, Cambridge, MA 02141, USA

Research, 320.Charles Street, Cambridge, MA 02141, USA

E f (Dases 1 to 17689)

Burch, Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barna, N., Bastien, V., Campoplano, A., Changa, J., Campoplano, A., Changa, J., Campoplano, A., Changa, J., Campoplano, A., Changalo, M., Colins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farcs, S., FitzGerald, M., FitzHugh, W., Gage, D., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Gand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Landers, T., Lehoczky, J., Lewine, R., Lindblad-Toh, K., Lumazares, R., Landers, T., Lehoczky, J., Warchine, R., Lindblad-Toh, K., Lumazares, R., Landers, T., Lehoczky, J., Warchine, R., Lindblad-Toh, K., Luw, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Marthews, C., McCatrly, M., McEwan, P., Marchan, T., Maldrim, J., Mancol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Donnell, P., O'Loller, J., Peterson, K., Paback, M., Rise, C., Rodyback, R., Seaman, S., Severt, M., Roy, A., Santos, R., Schauer, S., Travers, M., Talamas, J., Tesfaye, S., Thoddore, J., Topham, K., Travers, M., Travis, N., Trigilio, J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M., Direct, Submission

Direct, Submission

Direct, Submission
                                                                                                                                                                       Submitted (10-APR-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA 3 (bases 1 to 176898)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (01-JUN-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Jun 1, 2002 this sequence version replaced gi:20389476. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------- Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Only the last 176,9 kilobases of this clone are being submitted.
                                   1., Vassiliev, H.,
Ye, W.J., Young, G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center project name: L22018
Center clone name: 784_B_15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dipublished

Signature S. Louton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavin, L., Danderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavin, L., Boukhgalter, B., Eron, A., Camarata, J., Campopiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Perreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Glude, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Kalls, C., LaRogque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., Macdonald, P., Major, J., Marquis, N., Matthews, L., Mihova, T., Mlenga, V., Murphy, T., Najor, J., Mouyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., Polara, V., Raymond, C., Retter, R., Phukhang, P., Pierre, N., Polara, V., Raymond, C., Retter, R., Rieback, M., Riley, R., Riebe, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Talamas, J., Tesfaye, S., Theodore, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71871
                                                                                                                                                                                                                                                                                                               AC117569 176898 bp DNA linear PRI 01-JUN-2002
Homo sapiens chromosome 18, clone RP11-784B15, complete sequence.
AC117569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             839
                                                                  364 GIGACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTT----T 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryoča, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71812 TTAATGCGACAGTCTTGAAAACTGTAGTCTACGGACTCATGGGTTCGAATCCCATTCATG
                                                                                                                                                                                                                                                                                                                                                                                                   480 TATATCCAACGGTCCTAAAAAAACTTGTGTACCGTGCCTCCACATTTCAACTTTGCGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540 CTGAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600 TACTIGGICTIGGICTITIGGGICTITITIGAATITITICACGIGATITITIGTIGGIGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660 GCGTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTATAATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780 AATAAAATCGAAAAAATGAAATGTAAAAATTTGAGGGGGCCAAATAAAATATGAAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tren, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens chromosome 18, clone RP11-784B15 Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC117569.3 GI:21306953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 176898)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72172 TATACTAATTATT 72184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840 TATTATTTAATT 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
AC117569/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
```

```
112277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTATAAATTACATAATTTTATAAGTTTCACTTCTTATATAATACTCATATAATATAATAGG 735
                                                                                                                                                                                                                                                                                                                                                   75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76 ICCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTTTATAAGGCAATTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCGTGGTGGTAGATTTTTAGTTCTAGGTTCGAATGCAAGTTGGTTTAGACATTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     316 ATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACGCCACGTGACCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             436 ACTICIAAAAICIIGGAGAIIIGCACCGIIAACIAAIIAAGIGIIAIAICCAACGGICCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCGTCTTTTGTTCAATTTTTCACGTGATTTTTGTTGGTGAACACGCGTACTTGAAACTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        136 GCATGTTTGATAAATATATATATTGTTATAATACTTTTCAAAAGTATAAAGTTGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCCTGAAAGCCGTTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCTACTTGGTCTTGCTTT
                                                                                                                                                                                                                                                                                            Query Match
5.6%; Score 76.4; DB 9; Length 176898;
Best Local Similarity 43.8%; Pred. No. 0.0076;
Matches 379; Conservative 0; Mismatches 486; Indels 1;
                                         /rpc_family="Alusx"
complement (15709. .15838)
/rpc_family="HALin"
complement (15871. .16048)
/rpc_family="HALin"
complement (16291. .16343)
/rpc_family="Alusq/x"
complement (16564. .16985)
/rpc_family="Alusq/x"
complement (16564. .16985)
/rpc_family="Alusq/x"
complement (16586. .17052)
                                                                                                                                                       rpt_family="Tigger2"
7256. .17284
                                                                                                                                                                                                                        /rpt family="AT rich"
complement (17677. 17811)
/rpt family="FLAM_C"
18249. 18493
               rpt_family="CT-rich"
omplement(15291. .15601)
rpt_family="AluSx"
                                                                                                                                                                                                rpt_family="(A)n"
7623. 17657
                                                                                                                                                                                                                    repeat_region
     repeat_region
                             repeat_region
                                                        repeat_region
                                                                                  repeat_region
                                                                                                             repeat_region
                                                                                                                                      repeat_region
                                                                                                                                                                repeat_region
                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9/9
                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                             Б
                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
The remainder overlaps accession number AC091321 [WICGR project
L13165].
                                                                                                              /clone="RPI1-784B15"
/clone lib="RPCI-11 Human Male BAC"
?7. .70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /rpt_family="AluSq"
complement(14647. .14913)
/rpt_family="AluX"
                                                                                                                                                                                                                                    /rpt_family="LiMB5"
complement(1365, .1726)
/rpt_family="Li"
1770, .1906
                                                                                                                                                                                                                                                                                                                                                                            /rpc_family="MLTID"

Complement (3848 . 4056)

rpc_family="MSTD"

complement (4110 . 4183)

/rpc_family="MSTD"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="ERVL"
                                                       /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family="MLT11"
ement (Roor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               complement (8861. .9159)
rpt family="ERVL"
complement (9377. .9709)
rpt family="MLT1A1"
                                                                                                                                                                                                                                                                                              rpt_family="MER69A"
complement(2633. .2985)
rpt_family="L1ME"
                                                                                                                                                                                                                                                                                                                                    ____family="Lime"
. .3847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         family="MLT11" ement(6671)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement (5584. .6121)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       omplement(6621. .6705)
rpt_family="MLT11-int"
969. .7174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           omplement (8806. .8839)
rpt_family="ERVL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         omplement (4799. .4918)
rpt_family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rpt_family="(TA)n"
334. .8357
rpt_family="AT_rich"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rpt_family="AT_rich"
207. .8326
                                                                                                                                                                rpt_family="AT_rich"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    family="(CAA)n"
                                                                                                                                                                         528. - . 682
/rpt_family="LIMBS"
                                                                                                                                                                                                         rpt_family="(CA)n"
12. ιολο
                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="MLT1D"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rpt_family="AluJo"
                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family=" (TC) n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             omp]ement (6193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   omplement (8432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     omplement (9993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .8393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                    repeat_region
                                                                                                                                                                              repeat_region
                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                FEATURES
```

713

163

us-09-743-823-21.rge

g

ò

d ò

```
INV 04-OCT-2002
of 73 of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Plasmodium falciparum 3D7
Plasmodium falciparum 3D7
Eukaryota, Alveolata, Apicomplexa, Haemosporida, Plasmodium.
Eukaryota, Alveolata, Apicomplexa, Haemosporida, Plasmodium.
(bases 1 to 12029)
Gardner,M.J., Tettelin,H., Carucci,D.J., Cummings,L.M., Aravind,L.,
Koonin,B.V., Shallom,S., Mason,T., Yu,K., Fujii,C., Pederson,J.,
Shen,K., Jing,J., Aston,C., Lai,Z., Schwartz,D.C., Pertea,M.,
Salzberg,S., Zhou,L., Sutton,G.G., Clayton,R., White,O.,
Smith,H.O., Fraser,C.M., Adams,M.D., Venter,J.C. and Hoffman,S.L.
Chromosome 2 sequence of the human malaria parasite Plasmodium
      TAGGAAAAAAAGAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCCACACC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gardner, M.J., Hall, N., Fung, E., White, C., Berriman, M., Hyman, R.W., Gardner, M.J., Hall, N., Fung, E., White, C., Berriman, M., Hyman, R.W., Garlton, J.W., Paln, A., Nelbaon, K.E., Bowman, S., Paulsen, I.T., James, K., Eisen, J.A., Rutherford, K., Salzberg, S.L., Craig, A., Kyes, S., Chan, M.-S., Nene, V., Shallom, S.J., Suh, B., Peterson, J., Angiuoli, S., Pertea, M., Allen, J., Selengut, J., Haft, D., Andrer, M.W., Vaidya, A.B., Martin, D.M. A., Fairlamb, A.H., Fraunholz, M.J., Roos, D.S., Ralph, S.A., McFadden, G.I., Cummings, L.M., Subramanian, G.M., Mungall, C., Venter, J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481 ATATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                       ACTIGGICTIGCTTTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              774 AAATAGAATAAAATCGAAAAAATGAAATGTAAAAATTTGAGGGGGACAAATAAAATATG
                                                                                                                    CACGTGACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTA
                                                                                                                                                                                                                                         TICAATACTITITICCACTICIAAAAICTIGGAGAITIGCACCGITAACTAATTAAGIGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 TGAAAGCCGTTATGTTTAGGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTACTTGAA-----ACTTATTATAAATTACATAATTTTATAAGTTTCACTTCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            714 TAATACTCATATAATATATAGGGTTTAGAATGCCAATTTTTAAAAAAAGAATAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plasmodium falciparum 3D7 chromosome 2 section 64 complete sequence. AE001427 AE01427 AE01427 AE01427 AE01427 AE01427 AE01427 AE01427 AE01427 AE01427 AE01482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Science 282 (5391), 1126-1132 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGTCTATTATTAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATTAATTATTTTÄÄÄATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GI:3845314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AE001427.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99021743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9804551
      301
                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                       462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AE001427/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                 qq
                                                  셤
                                                                                                                    ò
                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                       Phylogeography of Drosophila subobscura from North Atlantic Islands inferred from mtDNA A+T rich region sequences Mol. Phylogenet. Evol. (2003) In press 2 (bases 1 to 973)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear INV 18-NOV-2003
A+T rich region genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
      795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (20-OCT-2003) Centre of Macaronesian Studies, University
of Madeira, Campus of Penteada, 9000 Funchal, Portugal
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITTAAGGCAATTAAGCATGTTTGATAAATATATATATATGTTATAAATACTTTTCAAAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATITITIATITAAAAATICTITATITATAAAGAAAAAGATITITAAAAAGTIT 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Drosophila subobscura
Eukaryota; Merazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 973)
Brehn,A., Harris,J., Hernandez,M., Perez,J., Larruga,J., Pinto,F.
                                                  796 IGAAAICIAAAAAITIIGAGGGGACAAAIAAAAIAIGAAAGICIAIIAIIIAAAIIIIIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTAAAATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTATAATTAAATAATAATAATTAATTTTAATTAATTAATTAAATCTGATAAAATTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Traktariarakan da karataran da takan da karatarakan da karatarakan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTATAAAAGTTGATGATGCGTGGTGGTAGATTATTTTAGTTCTAGGTTCGAATGCAAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 973;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:7241"
/country="Portugal: Paul Boquilobo"
                                                                                                                                                                                                                                                                                                                                                                                                                              DNA Drosophila subobscura strain Boquilobo-32. Ay442>>>1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5.6%; Score 76.2; DB 3;
44.7%; Pred. No. 0.021;
live 0; Mismatches 468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Drosophila subobscura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organelle="mitochondrion"
/mol_type="genomic DNA"
/strain="Boquilobo-32"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mitochondrion Drosophila subobscura
                                                                                                                                                                                                                                                                                         111976 GATATATATATATTATATATATA 111951
                                                                                                                                                                                                                                   856 CATTAGAATICTATTTTCCTTAGTTA 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="A+T rich region'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AY442221.1 GI:38304739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 385; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Brehm, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                 RESULT 9
AY442221/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
```

g ò QC

ò

g à g à

ò

us-09-743-823-21.rge

.1967)	.1999)	.2229)		2460)	.2566)		.2869)	.3045)		.3086)		3419)	, , , , , , , , , , , , , , , , , , ,	.3483)	.3691)		.3797)	. 39 9. 39 0. 30 0. 30 0	.4142)	.4236)		.4348)	, 4592)	
	<pre>/rpt_type=tandem /rpt_unit="(TA)n" complement(1968.</pre>		/rpt_type=tandem 23812414 /rpt_type=tandem /rpt_init="(a) n"	23842414 /rpt_type=tandem complement (2417.	/note="AT_rich" /rpt_type=tandem complement(2545.	<pre>/note="AT_rich" /rpt_type=tandem complement(2615.</pre>	/note="AT_rich" /rpt_type=tandem complement(2840.	<pre>/note="AI_rich" /rpt_type=tandem complement (3000.</pre>	/rpt_type=tandem /rpt_unit="(TA)n" 30103045		/Ipt_unite="(imm/in 30493082 /rpt_type=tandem 3287_ 3334	32823324 /rpt_type=tandem /rpt_unit="(A)n"	<pre>/rpt_type=tandem /rpt_unit="(TAAA);</pre>	<pre>complement (3461. /rpt_type=tandem /rpt_unit=" (TA) n"</pre>	<pre>complement (3510. /note="AT_rich" /rpt_type=tandem</pre>	37053745 /rpt_type=tandem /rpt_unit="(A)n"	<pre>complement (3766. /rpt_type=tandem /rpt_unit="(A) n"</pre>	complement (3798. /note="AT_rich" /rpt_type=tandem	<pre>complement(4077. /note="AT_rich" /rpt_type=tandem</pre>	complement (4189. /rpt_type=tandem /rpt_unit="(TA)n"	42014236 /rpt_type=tandem	complement (4265. /rpt_type=tandem	at	/rpt_type=tandem 45934618
repeat_region	repeat_region	repeat_region	repeat_region	repeat_region	repeat region	repeat region	repeat_region	repeat_region	repeat_region	repeat_region	repeat_region	repeat_region	ווסקקים ד	repeat_region	repeat_region	repeat_region	repeat_region		repeat_region	repeat_region	repeat_region	repeat_region	repeat_region	repeat_region
Carucci, D.J., Hoffman, S.L., Newbold, C., Davis, R.W., Frase Barrell, B.	TITLE Genome sequence of the human malaria parasite Plasmodium falciparum JOURNAL Nature 419, 498-511 (2002) REFERENCE 3 (bases 1 to 12029)	AUTHORS Gardner, M.J. TITLE Direct Submission JOURNAL Submitted (02-0CT-2002) The Institute for Genomic Research, 9712 Medical Center Dr. Rockville, MD 20850, USA	FEATURES Location/Qualifiers  1. 12029 / organism="Plasmodium falciparum 3D7"	/ NOT TO YET 90 TO	ent AT		/rpt_type=/rpt_unit= region complement	/nore="AT rich" /rpt_type=tandem repeat_region 153204	/rpt_type=tandem repeat_region complement(157204) /rpt_type=tandem	repeat_region complement(241264) /note="AT_rich"	repeat_region complement (335356) /rpt_type=tandem /rpt_type=tandem	/rpt_unit="(A)n" repeat_region complement(372513) /note="AT_rich"	repeat_region 557.589 // rpt type=tandem // rpt typ	repeat_region complement(557589) /rpc_type=reandem /rpt unit="(TA)"	repeat_region complement(659684) /note=*AT_rich" /rot type=tandem	repeat_region 709844 /rpt_type=tandem /rpt_unit="(TAAA)"	region complement(916 /rpt_type=tandem /rpt_unit="(TAAAA	repeat_region complement(10351061) /note="AT_rich" /rpt type=tandem	repeat_region complement(10761122) /rpt_type=tandem /_ritnitmi.m.nim	repeat_region comple="(IA)1" /rpt_type=randem /rnt_rip=="(T8)1"	repeat_region 1284	repeat_region complement(13741672) /note="AT_rich"	<pre>/rpt type=tandem repeat_region complement(17221810) /note="AT_rich"</pre>	/rpt_type=tandem , repeat_region 1931. 1967

```
Baumgart, C.
                                                                           Baumgart, C
                                                                                                                                                                                                                                                                                                                                Agency :
                                                                                                                                                                                                                                                                                                              Funding
                                                                                                                                                                                                                                                                                                                                                          source
     AUTHORS
TITLE
JOURNAL
                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                REFERENCE
                                                                                                                                                AUTHORS
                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                1116956 266544 bp DNA linear INV 12-MAR-2003 ctyostelium discoideum chromosome 2 map 1418423-1684967 strain
                                                                                                                                                                                                                                                                                                                                                                                                                           629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence and analysis of chromosome 2 of Dictyostelium discoideum Nature 418 (6893), 79-85 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dictyostelium discoideum
Dictyostelium discoideum
Eukaryota, Mycetozoa; Dictyosteliida; Dictyostelium.
1 (Sases 1, 266544)
Gloeckner,G., Eichinger,L., Szafranski,K., Pachebat,J., Dear,P.,
Lehmann,R., Baumgart,C., Parra,G., April,J.F., Guigo,R., Kumpf,K.
                                                                                                                                                                                                                                                                                                                                                                                                                     600 TACTIGGICTIGCTITIGCGICTITIGITCAAITITICACGIGAITITIGITGGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660 GCGTACTTGAAACTTATAAATT-ACATAATTTTATAAGTTTCACTTCTTATAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        779 GAATAAAATCGAAAAATGAAATGTAAAATTTTGAGGGGGACAAATAAAATATGAAGT
                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                839 CIATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTA
                                                                                                                                                                                                                                                                                                                                                                  Length 12029;
                                                                                                                                                                                                                                                                                                                                                                Score 76.2; DB 3; Length 1
Pred. No. 0.013;
0; Mismatches 128; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The Dictyostellum Genome Sequencing Consortium 2 (bases 1 to 266544)
                                               /rpt_type=tandem
complement(4927. .5117)
/rpt_type=tandem
/rpt_unit="(TATAA)n"
5002. .5164
/rpt_type=tandem
/rpt_unit="(A)n"
complement(4619. .4860)
                                                                                                                                                                                            /rpt_type=tandem
/rpt_unit="(TAAAA)n"
complement(5295. .5566)
                                                                                                                                   /rpt_unit="(TATAA)n"
5047. .5087
                                                                                                                                                                                                                                                                              /rpt_type=tandem
/rpt_unit="(TA)n"
5412. .5437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AX4, complete sequence.
AC116956 AC116980 AC115678
AC116956.2 GI:28828496
                                                                                                                                                                /rpt_type=tandem
5242. .5294
                                                                                                                                                                                                                                      /note="AT_rich"
/rpt_type=tandem
complement(5408.
                                                                                                                                                                                                                                                                                                                       /rpt_type=tandem
5584. .5618
                                                                                                                         rpt_type=tandem
                                            rich"
                                                                                                                                                                                                                                                                                                                                                                  56.0%;
                                                                                                                                                     .5087
                                                                                                                                                                                                                                                                                                          .5437
                                            note="AT
                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 56.0
Matches 164, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22092622
12097910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AC116956
                             repeat_region
                                                                     repeat_region
                                                                                                              repeat_region
                                                                                                                                                      repeat_region
                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AC116956/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
MEDLINE
PUBMED
REMARK
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         입
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
join(<842. .1240,1322. .1916)
join(<842. .1240,1322. .1916)
/note="GeneID exon scores (in order of location ranges):
29.76, 65.85 - GSCJ_ID dd_02843"
/codon start=2
/codon start=2
/product="similar to Dictyostelium discoideum (Slime mold): Hypotherical 98.7 kDa protein (Fragment)"
/protein id="AAO516571"
/db_xref="G1:28828559"
/translation="VAISNENINNNKUNDNKEIRPFTDIIIDDSTEINFNNHEDNN NNNNNNNNNATENESGNSTEINFNNHEDNN NNNNNNNNNNATESCONTGGLECVUCLDFLDSYLPTLYKIISEYGVIESCSKI GGLINKTDBIDICTGLCDLUGVDTFWKIFVTNDINFYAGELITACSTFRUNFAADFIS LGVSPAIGQSGSKFLIDLIFGVVNTTGAGGPAFIVFYTQTQSKFINYQLFEGFSPGNY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="similar to Mus musculus (Mouse). 16 days neonate thymus CDNA, RIKEN full-length enriched library, clone.Al3067211 product:cyclin C, full insert sequence" /protein_id="Apo51105_1" (db_xref="G1:28828497")
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CFVIONLGNALKLRORAISTAIVYFRRFYLRNSFVDCEPRIVAVTCLYLSSKYBECIT
QAKKCAAKMKEIDHSFNYLMNDILECEFFVLBELDFCLIIYHPYKSLPFYLQSSGLDP
ASIBIIWGIVNDSYRTDVCLLYPPFVVGLGCILLGSYLLKKDIKQMLSELNVEMKDIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="G1:28828498"
Ab_xref="G1:28828498"
Aranslation="MFQLESFLESGRATAVER!ITDACPVYAPFFGAMGVTAALVFTV
MGAAYGTAKASVGISNMGVMKPDLV!KAFIPV!FRGVIA!YGLIICVILVGGIKPNAN
YTLMKSFTDLGAGLIVGLGGLAAGMAIGIVODSGYRAFGQQPKLYVIMMLILIFSEAL
GLYGLIIGILLSSVSDTYCFGQALVPLNSGNVIGKN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SVKYDFETTNNSTFINGQYPVTVYMCNGECGTMYSTLLNQTTSYFTISNPTPTPTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  translation="MAANFWESSHCTEWLLDRNKIEESNPKDKOYLTPIELKKLRTHY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNSTTPTPTPTPTNSTPTPTSTSTPTSTPTPTPTSSSSTKTHSSHYKNKINK.
complement (join(2119. .2662,2752. .2943,3024. .3055))
//note="deneil exon scores (in order of location ranges):
32.18, 11.63, -1.19 - GSCJ_ID dd_02844"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASIBIIWGIVNDSYRTDVCLLYPPFVVGLGCILLGSYLLKKDIKQMISELNVEMKDI
EVSKDLIDYYEFEKQQSLQNQSELDLYNKLPIRNKK"
Complement(joln(3639. .4158,4352. .4422))
/note="GeneID exon scores (in order of location ranges):
63.23, 9.00 - GSCJ_ID dd_02845"
/codon_start=1
Baumgart,C.
Direct Submission
Submitted (04-APR-2002) Genome Analysis, Institute of Molecular Biotechnology, Beutenberstr. 11, Jena 07745, Germany (bases 1 to 266544)
                                                                                                                                                                                                                          Direct Submission
Submitted (04-MAR-2003) Genome Analysis, Institute of Molecular
Biotechnology, Beutenberstr. 11, Jena 07745, Germany
4 (Dases 1 to 266544)
                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (12-MAR-2003) Genome Analysis, Institute of Molecular
Submitted (12-MAR-2003) Genome Analysis, Institute of Molecular
Biotechnology, Beutenberstr 11, Jena 07745, Germany
On or before Max 4, 2003 this sequence version replaced
gi:20042935, gi:19682974, gi:19919988.
CDS predictions from GeneID do not necessarily reflect true gen
Further Information is available from IMB Jena, Department of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Slime
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /product="similar to Dictyostelium discoideum (Sl
mold). Vacuolar ATP synthase proteolipid subunit
3.6.1.34)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (http://genome.imb-jena.de/dictyostellium/)
and the Univerity Colonge, Institute for Biochemistry I
(http://www.uni-koeln.de/dictyostellium/project.shtml
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Deutsche Forschungsgemeinschaft (DFG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Dictyostellum discoideum"
/mol_type="genomic DNA"
/strain="AX4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein_id="AAO51106.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /chromosome="2"
/map="1418423-1684967"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        db_xref="taxon:44689"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
1. .266544
```

CDS

CDS

```
146889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           147068 TITATIATATITTAATIATITATITATIATIATIATIAATIAATITAATIAATITAATITITTI 147009
                                          (cGWP-stimulated cGMP-specific phosphodiesterase)"
protein_id="AAOS111.1"
/db_xreff="G1:2882855"
/translation="MMFSKRKSIRFNPEGDYTELPRGGYVVPSKLGGIQFGVPPETIK
                                                                                                                                                                                           TERBAIGLIDIETHE SALLASTER SALLASTER PARTNYFILKRKUSFUCTKEQEGRI
DSMALKIDOTTI YVEPEELMDRKTGINAAEAEFPATKQTSSSSPPLSPOQOQPPPPLV
RIVEOETLLGPPERFYGIIINSSSSTTDTSKTSPIKKQTSSSSSPPLSPOQOQOPPPPLV
KQPSQQQLEELATMDTCHYHHHHHQEVNDNDNNNTTTNNNNIEILEQQQQQQQQQQ
^^^^NDNNTTTNNNNIEILEQCOQOQOQOQQQ
                                                                                                                                                                                                                                                                                                                                             QQODEDSTOVDEBFQKEFSSTFPRSE PNLEXECKYLRTFNSVDELFDFILFDDNGIA
KLSDDVEIHFQEDQSLFKVLQFEETGKGNKVQTLVATIPSKILFPDMINSISTINDNK
IPDPPTFGITIIGSSHGFDPKKSTTGFVLMINKRGIMVDPPLNSSSFLQSQGVPTRMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DHIILTHCHADHDSGTEQKLLEBYQITVVTTPTIIGSFLRKYGALSNLSTÖLLRRLFI
FRPVMIGBPMIISGAEFRFYTIHTIPTISFEVFYGGKSIFYSGDTCYDPNRIKDMNK
RGIMKTSRMKFFLRPWNHTVVLHEAGVPPIHTPVSVLRALPDBVKNRLYLVHISBHTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NVOATTDVEVLSFNKEDFLGITRNSTESIQFITRLWEKRNEKSWETMSLNSVFSRCTN
SQKTAIQSILVRELIKKDETLWCKGEEALFGCLVAEGSFVFKEDDSLESFSQGSFLGD
INAMTTQPPSIHKTTVVAKEESVIYKVLSQDLIKFFSNNPGIQLAFLDTIFVDALRDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /translation="MTQLGYQQIPPGMHNNNNNNNNNNSNSSNNNNNSNFIDFLRQSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ITMNIDVINSSGMMTPSILMINSSIERRYARELENDENGARSSHINNINSHELDFLEGGS
ITMNIDVINSSGMMTPSILMINSSIERRYARELENDENGGGSSPINTGESPINTGESCOMPLENDENGGGSSPINTGESSILMINSSIERRYARELENDENGGGSSPINTGESSILMINGSSIERRYARELENDENGGGSSPINTGESSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMINGSSILMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PAGSGLKIAKEGVAHTLSLDVMKSSHSEAVDILKLVESVDIFRSIPLTQACEILQTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KRKYSQGSVIIARDTEPDAFYVVASGVVCVNIGELKKNLIVGDYFGEMSLVMGGLRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PAT 14-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTAGACATTTAGCCTTATTCTTTTTTTTAACCAAAATGAAATGGAAAACCTTTA 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="GeneID exon scores (in order of location ranges):
24.15 - GSCJ_ID dd_00638"
/codon start=1
/product="hypothetical protein"
/protein id="MAOS1112.1"
/db_xref="GI:28828504"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             146948 AATTTTTTTTTTTTTTTAAAATTTTTTTTGATCTTCTAATTTTACAATACAATAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65 TTTACCAGAAATCCGTTAATATTGTTAAAATATTTACCAACTAATTTATAAATTTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     125 AAGGCAATTAAGCATGTTTGATAAAATATATATATGTTATAAATACTTTTCAAAAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         185 AAAGTTGATGATGGTGGTGGTAGATTATTTT--AGTTCTAGGTTCGAATGCAAGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 ATAATCTATACATTAAAAATTTTGATTTTTAAAATTTTAGAAATTCATGATTTTATTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 53.8%; Score 75; DB 3; Length 266544; Similarity 53.8%; Pred. No. 0.012; 77; Conservative 0; Mismatches 150; Indels 2;
    cGMP-stimulated cGMP phosphodiesterase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    146828 AAAAAAAAAAAAAAAAAAAAAAA 146800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 386 from Patent W002077272.
AX599046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               303 GGAAAAAAAAGAAATCAAAATTGAAAACA 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement (21566. .21865)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX599046.1 GI:28399186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VQQLVNSKLTY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          synthetic construct
synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
AX599046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               complement(join(17600. 18734,18858. 19218,19315. .20422))
/note="GeneID exon scores (in order of location ranges):
69.94, 30.45, 124.05 - GSCJ_ID dd_00639"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       / Trainiation="MEDTALMOYPHPIRYLHAATTPKLRFAFEIFSLIVISLFVSTLF

VMHNOFVGKSOLKALPNYTRFDILSIBIKGETSIFSRQHIYKKSTTTTETTPTTTTT

TTTWNDIDOQSYMKYLQVLKGAVDKHEPCIYDENYDNDNDIDLDKDSVTTTTTTAA

AAAAAATTTTTTTTSIITESITYEKTALBFIIDLIRQMKHSLYNFISIFPROGOGO

OOYKKDRLEREHLKELKEELKKHIKDIDRNHYMFEKLQHHQQOQLQOPQQOQQ

OOQQQQQQQQQQQEBEKKEKDKOHNNHANNGIGSGYDDLDLDLDYQYEDSHNP

RYEFSYONAPHALTTHIIDINANDOLGMCFHILINDLDLDYQYEDSHNP

RYEFSYONAPHALTTHIIDINANDOLGMCFHILINGYSPLILINN

LVYGFPLIPNNNINNNNNNNGRGGYLRIAGNSQLINLYQYSSPKLSINNESILIYIGY
                                                                                                                                                                                                                                                                                                                                                                                                                            /translation="MPDINPLTPIPDNNYYDOCTYFLVTISPSTWAALGIGLSLALSV
VGSAWGIWVTASSLMGAAVKEPRIRSKNIISIIFCEAVAIYGIILAIILNGKIDKFLN
IWDPASDYMAGYMMFGAGITVGLCNVFSGVCVGIAGSGCALGDAQNPSLFVFMLIIEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QPSSSNINKSKSVKVTGYGNGSKNAGQAIPRTDKDYKAAIBYKKEKKLAIKQIKRNKL
STSPTITTTTTTTTATSYENVNIESPNDENNKTKKLFKLEVKSIIEKETDLKKKKERL
PSSIEVYNRILHDEQLKDKIQDFIITYEDRPDGLCDSELLKLDEAIPFHRIRQIRYLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /produčt="hypothetical protein"
/protein_id="AAOSINO.1"
db_xref="G" 15828590"
/translation="MNINYFKNGNNNNGHSSGVGSSGHSYYSNNKGTSFVPSPVLYM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TPMAP I DYGCPDDMLDDGRSDTA PSGONTS PYYQHENFHWHNWTHNWTHNNNNNNNN
HEQPNCALEFLEHHLSFETKYGWVSQCNRXYQEDRHKVKMCLENNQYLSLFGVFDGH
GGDRASNFVKKXI VNCVNKYVKENKAGYSSKNLNSSSSPTGSTSSASSGSSSSSSAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGGGGGGGPLNGSSSSIGMPHASTISPTPSSGNSSTSSGASSSGVSSANSPIGYGFD
SPGWMKFNHLYNQNNFQQEIQNRSBFLQAALYNTFQFLDNRYCKKYRQKGDGGTTCLV
ALLSNPPNAQPLLVVANAGDSRGVLCRNGKAYALSYDHKPGNPKEKQRITSSGGKIBW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DFNERIWRVSGILSVSRGIGDIPLKKWVICDPEFVVFPLKGPIRKSNSSRYTSPSSSS
SSSSSSSSSSSSPSSFKAFRSSPQINRFFFSPSFKNKTISNSTGSLPPPSTNNSPQ
QPPPILHQNNISSPVSSISEAQPFNSIDNQNNNNNNNNKKLISTSPPNHKMYYCSNH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /translation="MSTTIYFSYPTYSNEREFTTYDDDSEEFYYDQSYFQDYSFQNKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QYNYGEVDQFFVLATDGIWDVFENQELVEFINAIIEESYHSKRLDWDPNEISKRVVQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="similar to Plasmodium falciparum (isolate 3D7).
Hypothetical protein"
/protein id="AAO51109.1"
/db_xref="G1:28828501"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OIVWSRSERFYDESNLLD"
complement (join)(9480. .10271,10379. .11125,11253. .11858,
11963. .12121)
                            7066. 7249)
/note="CeneID exon scores (in order of location ranges):
6.21, -0.71, 4.93, 17.98, 20.83 - GSCJ_ID dd_02846"
/codon start=1
/product="similar to Mus musculus (Mouse) Similar to
                                                                                                                                                                                                                                                             ATPase, H+ transporting, lysosomal (Vacuolar proton pump)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="GeneID exon scores (in order of location ranges): 66.20 - GSCJ ID dd_02847" (codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="GeneID exon scores (in order of location ranges): 50.34, 56.92, 38.65, -2.17 - GSCJ_ID dd_03351" /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement(join(13033. .14475,14560. .15048))
/note="GeneID exon scores (in order of location ranges):
138.82, 42.31 - GSCJ_ID dd_00640"
.6004,6157. .6199,6351. .6486,6853. .6962,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product="similar to Dictyostelium discoideum (Slime
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FAGALGLYAVIVGILMTTNALGVTQQPALKP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'product="hypothetical protein"
'protein id="AAO51108.1"
'db_xref="G1:28828500"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INQOTIVNNSSQRRLAASAILNNSNEM"
                                                                                                                                                                                                                                                                                                                                                 protein_id="AAO51107.1"
'db_xref="G1:28828499"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               complement (7573, .8283)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   codon_start=1
oin (5902
```

CDS

CDS

```
2612 ATATAAATTTAAAAAAAAAAAAAAAAAAAAAATGTTAAAATTTAAAATTTTAAAAT 2671
                ATAGAATAAAATCGAAAAAATGAAAATGTAAAAATTTTGAGGGGGGACAAATAAAATATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Dictyostellum"
/mol_type="genomic DNA"
/strain="AX4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             db_xref="taxon:44689"
chromosome="2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /map="581427-735498"
complement (join (393.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                Dictyostelium discoideum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .154071
                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                          Baumgart, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baumgart,C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baumgart
                176
                                                                                        2672
                                                                                                                          RESULT 13
AC115598/c
LOCUS
DEFINITION
                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                 REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                  QQ
                à
                                                             \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                        2011
                                                                                                                                                                                                                                                                                                  2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2251
                                                                                                                                                                                                                                                                                                                            CCAGAAAICCGTIAAIAITGTIAAAAIAITACCAACIAAITITAIAAAITTIIAAGG 128
                                                                                                                                                                                                                                                                                                                                                  175
                                                                                                                                                                                                                                                                                                                                                                                                                             CAAAAGTATAAAGTTGATGATGGCGTGGTAGATTATTTTAGTTCTAGGTTCGAATGC 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITIALICAALACTITITCCACTICTAAAATCTIGGAGATTIGCACCGTIAACTAATTAA 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCITTAGGAAAAAAAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCC 355
                                                                                                                                                                                                                                                                              68
                    Berlin, K., Braun, A., Distler, J., Guetig, D., Howe, A., Mueller, J., Olek, A., Piepenbrock, C., Adorjan, P., Grabs, G., Lesche, R., Leu, E., Lewin, A., Lipscher, E., Maier, S., Model, F., Mueller, V., Otto, T., Peler, C. and Ziebarth, M.
Methods and nucleic acids for the analysis of hematopoietic cell
                                                                                                                                              /organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="raxon:32630"
/note="chemically treated genomic DNA (Homo sapiens)"
                                                                                                                                                                                                                                                                            ACACCCACGTGACCCAACAATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   476 GIGITALATCCAACGGICCTAAAAAAACTIGIGIACCGIGCCICACAITICAACTIIGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    536 CACCCTGAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     596 AGGCTACTTGGTCTTGCCTCTTTTGTTCAATTTTTCACGTGATTTTGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            656 ACACGCGTACTTGAAACTTATAAATTACATAATTTTATAAGTTTCACTTCTTATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                     14;
                                                                                                                                                                                                                              8026;
                                                                                                                                                                                                                                                  0; Mismatches 474; Indels
                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                             CAATTAAGCATGTTTGATAAAATATATATATTGTTATAAAT
                                                                                                                                                                                                                         DB 6;
                                                                                                                                                                                                                                        0.025;
                                                                                    proliferative disorders
Patent: WO 02077272-A 386 03-OCT-2002;
Epigenomics AG (DE)
                                                                                                                                                                                                                         Score 74.6;
Pred. No. 0.
                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                         Query Match
Best Local Similarity 44.6%;
Matches 393; Conservative
artificial sequences.
                                                                                                                                    9508. 1
                                                                                                                                                                                                                                                                                                    1833
                                                                                                                                                                                                                                                                                                                                                                                                                              176
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   356
                                                                                                                                                                                                                                                                                                                            69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   416
                                                                                                                                      source
         REFERENCE
AUTHORS
                                                                                              JOURNAL
                                                                                                                        FEATURES
                                                                        TITLE
                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                Dp
                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                Dp
                                                                                                                                                                                                                                                                                                                                                                          \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                    쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ρp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Db
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
```

```
AC115598 154071 bp DNA linear INV 12-MAR-2003
Dictyostelium discoideum chromosome 2 map 581427-735498 strain AX4,
complete sequence.
AC115598 AC115593 AC117269
AC115598.2 GI:28850406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /protein_id="AAO53175.1"
/db_xref="GI:28850407"
/translation="MKFIPFNLYDNQNLLPSNEDDEPIDVIASLNDFLMSTKNGEILH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence and analysis of chromosome 2 of Dictyostelium discoideum Nature 418 (6893), 79-85 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dictyostellum discoldeum

Bukaryota; Mycetczoa; Dictyostellida; Dictyostellum.

1 (bases 1 to 154071)

Gloeckner,G., Eichinger,L., Szafranski,K., Pachebat,J., Dear,P.,
Lehmann,R., Baumgart,C., Parra,G., April,J.F., Guigo,R., Kumpf,K.
Tunggal,B., Cox,E., Quail,M.A., Platzer,M., Rosenthal,A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement(join(393. .1811,1957. .4317,4403. .4846))
note="GeneID exon scores (in order of location ranges):
10.23, 208.32, 33.09 - GSCJ_ID dd_03170"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (12-MRR-2003) Genome Analysis, Institute of Molecular Biotechnology, Beutenberstr. 11, Jena 07745, Germany on or before Mar 5, 2003 this sequence version replaced gi:19569986, gi:2007116, gi:19570017.

CDS predictions from GeneID do not necessarily reflect true gene Further Information is available from IMB Jena, Department of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (21-MAR-2002) Genome Analysis, Institute of Molecular Biotechnology, Beutenberstr. 11, Jena 07745, Germany 3 (bases 1 to 154071)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Molecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (05-MAR-2003) Genome Analysis, Institute of Biotechnology, Beutenberstr. 11, Jena 07745, Germany 4 (bases 1 to 154071)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (http://genome.imb-jena.de/dictyostellum/)
and the Univerity Colonge, Institute for Biochemistry
(http://www.uni-koeln.de/dictyostellum/project.shtml
Funding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
/product="similar to Plasmodium falciparum.
           876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The Dictyostelium Genome Sequencing Consortium 2 (bases 1 to 154071)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Deutsche Forschungsgemeinschaft (DFG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       discoideum"
836 AGTCTATTATTTAAATTTTCCATTAGAATTCTATTTCCTT
                                                                          AATAAATTTTTAATTTTTTTAAATTTTATTTTTTTT
```

```
THE SET INTO 12 INTO 1
```

```
201926. .21132
/note="GeneID exon scores (in order of location ranges):
/s.59 - GSCJ_ID dd_01216"
/codon start=1
/proction_id="Appothetical protein"
/proction_id="AAOS3178.1"
/db_xref="GI:S8E50411"
/translation="WMFQDVRTLKEGLEFNGITLHLTSCQHGCILSRKELNDYVKKIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /protein_id="AAOS3179.1"
/bb_xxef="G1:28850412"
/db_xxef="G1:28850412"
/db_xxef="G1:2885041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /translation="MIRGIEIRGKVDKNVKSILTEECLFFLGELERRFGGIRKNLLQK
RLDRQIDINNGILPSFLKDSDCKRATDKN#KCSSVFLBIQDRRVEITGPTDFRKMVINA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5;
                                                                                                                             erligekemkatlewkkpipibdediklygseslekdigerrenftlmefyigsn
ipdtpkepddegkdyddkdvliipsgdindvfddskinelmvippilsdginddnii
nnnnnthsnspdenntkmindenndenntgssnkvvemianidpnnnnnnnnnnnn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DINNIQSNENNLDDDKNKNNI LPRKRSI SRDFTNSNTNINSNSINNINSNVNEEQDGQRKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LINISINISVINSINITPSQYHHHHHHHHHHNININSSSSSSSSSSSTINGINSSGGGGGGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement(join(21648. .21664,22429. .23314))
/note="GeneID exon scores (in order of location ranges):
183, 54.96 - GSCU_ID dd_03320"
/codon start="
/product="similar to Neurospora crassa. Hypothetical 79.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             complement(join(24477. .25442,25527. .26192))
/noce="GeneID exon scores (in order of location ranges):
99.83, 60.64 - GSCJ_ID dd_01214"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            produ\bar{c}t="similar" to Myxococcus xanthus. Malate synthase (EC 4.1.3.2)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 44.0%; Pred. No. 0.015;
Matches 408; Conservative 0; Mismatches 514; Indels 5;
                                                                                                                                                                                                                                                                         NANNINY GIMMININ'NY NANNIN'NY NANNIN'N'N' S''S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IQMLKSHWMEKQSNYKYLFFNYIK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein_id="AAL92317.2"
db xref="GI:28850413"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    kDa protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
```

2 AAAATAATCTATACATTAAAAATTTGATTTTAAAATTTTAGAAATTCATGATTTTATT 61

CDS

q	105064 AAAAAAAAAAATTTAATAAAAATTAAAAATTAAAAATTAAAA	Cor	Continuation (4 of 5) of AC116305 from base 300001 (AC116305 Dictyostelium discoideum chi
<i>&amp;</i> 43	62 ITITITACCAGAAATCCGTTAATATTGTTAAAATATTACCAACTAATTTATAAATTTAT 121 105004 AAACTTTAATAATATTAATATTAATATTAATAATTAATAA	Ош,	5.4%; Score 73.6; DB 3; Length 110000; Similarity 45.3%; Pred. No. 0.022;
à	100 THE TRACE STATE STAT		cones 388
<b>7</b> 42		중 음	7 AAICTAPACATTAAAAATTIGATTTTAAAATTTTAGAAATTCATGATTTTATTTT
ð 1	182 TATAAAGTIGATGATGGTGGTGGTGGTTATITIAGTICTAGGTICGAAIGCAAGTIG 241	<i>ò</i>	TACCAGAAATCCGTTAATATTTATAACAACTAATTTATAAATTTTAATAATTTTAA
g :	TCTTTTTTTTTTTTTTTTTTTTTTTAAAATAAATAAATA	qa	51286 AATITIGATITIGAATTATATGAGCAATACCTITITICAATICTATAATCTGTATATA 51345
∂ d	242 SITIAGACTITIAGCCTIAITCTTTTTCTAACCAAARAATGTAATGGAAAACCTTT 301 104824 TITITITITITITITITITITITITITGAITTGAITTAATTIACTICITCTATATAACTT 104765	දු දු	127 GGCAATTAAGCATGTTTGATAAATATATATTGTTATAAATACTTTTCAAAGT 182 51346 ATTTCAAATGGAAGTCCAATAATATTTCCAAAATTATTTTGAAATTATTTAGTATTATTTAGTATAATTATT
'n	302 AGGAAAAAAAAAATTCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAGCCACCCC 361	ò	242
qq	104764 GGARAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	qq	
ζ Q	362 ACGTGACCCAACAATATAAAATAAGAGTTTGCTCTACAGTAAATGGGATACTTTTTAT 421 104707 ATAAAAAAAAAAAAAAAAAAAAAGGATGTTAATGATTGAATTCAAATAAAAAAAA	\$ B	243 TITAGACAITITAGCCTIAITCTIAITTICTAACCAAAATAAAITGTAAAIGGAAACCTITA 302 
ò	422 TCAATACTTTTTCCACTTCTAAAATCTTGGAGATTTGCACGGTTAACTAATTAAGTGTTA 481	ζ	362
qq	104647 AAAAAAAAAAAAGATTTTTGTGAAATCGGATTTTTTTCACAAATCATGATTACCCATTA 104588	qa	
δλ F	T 541	<i>ò</i>	363
3 8	0438/ IIIRGGATITITAFAAAAAAAAAAAATTITTAATTTTATTTACCTTAAAATRAAATTTTTAT	QC .	51586 AATTACCTGACCAAAAAATATCAAGAGGATAAAĊGAATAAAATATTTGAAGTTAAATTTG 51645
g q	542 GAAAGCCGTTATGTTTAGGTTAGTGTTTGCAACAGTTGAGGGCGCATCAGGAGGGTA 601 	<i>ኢ</i> 성	420 ATTCANTACCTTTTCCACTTCTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGT 479
\dot \text{4}	602 CITGGTCTTTGCGTCTTTTGTTCAATTTTTCACGTGATTTTGTTGGTGAACACGC 661	ò i	TATATCCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACC
}	62 GTACTTGAAACTT	<u>a</u> ;	TTGAAAAATCTGATGAATAAAATGGACAATCTAAAGTATCATGAACTAAAAACCATTTTT
G qq	07 CAATTTTATATTTGAATAAATAAAATTAAAATTAAATAAA	<u>}</u> 8	540 CTGAAACCGTTATGTTTAGGTTTGGAACAGTTGAAGGGGCATCACAGGGGC 599   S1766 CAATATTTTCTTTTGAAATTAAAGATTCTAAACTAAACT
දු දු		\$ 6	600 TACTIGGICTITIGGGICTITITGTICAATITITTCACGIGAITITIGGIGAAC 657 
δ	839	}	
q <sub>C</sub>	A 10	Z QC	86 TICCAACTIGEGECAAGTAAAATICTATATAATITAAAATITTGGIGGGTATA
S E		8 1	718 ACTCATATAATATATAGGTTTTAGAATGCCAATTTTTAAAAAAGAATAAAAAAT 777
} {	TUGGITAGITAGI	qr —	51946 TATCATTTGCTATATATATATAAAAAAAAAAAAAAAAAA
ò 8	900 GGAGATACACGAAAATGTCATGAAACA 926 	상 음	778 AGAATAAAATCGAAAAATGAAAAGTTAAAAATTTGAGGGGAAGAATAAAATATGAAAG 837 
E		δ	
AC116305 3 WPCOMMENT	1.4 NJ 3 NJ 8	qa	
Sequence Fragm	split into 5 fragments LOCU ent Name Begin End	RESULT	11.7 15
AC AC	AC116305_1 100001 210000 AC116305_2 200001 210000 AC116305_3 300001 410000 AC116305_4 400001 413138	ACO96 LOCUS DEFIN ACCESS	AC096550 LOCUS AC096550 LOCUS AC096550 DEFINITION Homo sapiens BAC clone RP11-20F13 from 2, complete sequence. VERSION AC096550 AC013666 VERSION AC096550.2 GI:19033954

TITLE JOURNAL MEDLINE

REFERENCE AUTHORS

TITLE JOURNAL REFERENCE

REFERENCE AUTHORS

PUBMED

AUTHORS TITLE JOURNAL

REFERENCE AUTHORS TITLE

JOURNAL

COMMENT

ORGANISM

KEYWORDS

```
The sequence of AC013666 has been incorporated into AC096550.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /rpt_family="MER2_type"
18866..18920
/rpt_family="AT_rich"
18903..19656
/rpt_family="L1"
20507..20646
                                         /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="2"
                                                                                                                                                                                                                                                                              2425. .2447
/rpt.family="AT_rich"
2429. .3528
/rpt.family="L1"
3595. .388?
                                                                                                                                                                                                                          2175 .....y="AT_rich"
/rpt.family="AT_rich"
2197 ..2409
/rpt.family="L1"
/rpt.family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rpt_family="AT_rich"
8528. .18865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rpt_family="AT_rich"
8495. .18517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11481. .11501
'rpt_family="AT_rich"
2371. .12577
                                                                                                        /mc/
/clone="RP11-20F13"
/clone_lib="RPCI-11"
1.1075
/rpt_family="L1"
1376. .1837
/rpt_family="L1"
1887. .2087
/rpt_family="L1"
1940. .1982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rpt_family="AT_rich"
7904. 1846c
                                                                                                                                                                                                        1940. .1982
/rpt_family="AT_rich"
2175. .2200
                                                                                                                                                                                                                                                                                                                                                                           4204. .4285
/rpt_family="ERV1"
4240. .4283
/rpt_family=" (TG) n"
4588. .4628
/rpt_family=" (TG) n"
5235. .5660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt_family="MaLR"
8324_ .9069
/rpt_family="L1"
11481_ .11501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rpt_family="ERV1"
8122. .18142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="MIR"
6002. .6091
/rpt_family="L2"
7654. .7924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rpt family="ERV1"
2674. .12864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rpt_family="ERV1"
4213. .14333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    family="ERV1"
[. .15876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rpt_family="ERV"
7869..17800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rpt_family="MaLR"
205. .8279
                                                                                                                                                                                                                                                                                                                                                  /rpt_family="Alu"
1204. .4285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rpt_family="L1"
4487, .15130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rpt_family="L2"
685. .5928
                              .101034
                                                                                                 /map="2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                       repeat_region
                                                                                                                                                                  repeat_region
                                                                                                                                                                                           repeat_region
                    FEATURES
```

repeat\_region

```
Mapping information for this clone was provided by Dr. John D. McPherson, Department of Genetics, Washington University, St. Louis MO. For additional information about the map position of this sequence, see http://genome.wustl.edu/gsc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (18-SEP-2001) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St. Louis,
MO 63108, USA
4 (bases 1 to 101034)
Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
Submitted (01-MAR-2002) Department of Genetics, Washington
University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA
On Mar 1, 2002 this sequence version replaced gi:15638715.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOTICE: This sequence may not represent the entire insert of this clone. It may be shorter because we only sequence overlapping clone sections once, or longer because we provide a small overlap between neighboring data submissions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This sequence was finished as follows unless otherwise noted: all regions were double stranded, sequenced with an alternate chemistry, or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats, all regions were covered by sequence from more than one subclone; and the assembly was confirmed by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The RPCI-11 human BAC library was made from the blood of one male donor, as described by Osoegawa, K., Woon, P.Y., Zhao, B., Frengen, E., Tateno, M., Catanese, J.J. and de Jong, P.J. (1998) An improved approach for construction of bacterial artificial chromosome libraries. Genomics 511-8. The clone may be obtained either from Research Genetics, Inc. (http://www.resgen.com) or Pieter de Jong and coworkers at http://www.chori.org
                                                               Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 101034)
Sulston, J.E. and Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NEIGHBORING SEQUENCE INFORMATION:
The clone sequenced to the right is RP11-335E8, 2000 bp overlap.
Actual start of this clone is at base position 1 of RP11-20F13;
actual end is at base position 70865 of RP11-335E8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Data from AC083850 was used to finish this clone, AC013666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center: Washington University Genome Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 101034)
Dauphin,S. and Meyer,R.
The sequence of Homo sapiens BAC clone RP11-20F13
Upublished (2001)
3 (bases 1 to 101034)
Waterston,R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Center code: WGGSC
Web site: http://genome.wustl.edu/gsc
Contact: sapiens@watson.wustl.edu
------Summary Statistics
Center project name: H_NH0020F13
Drafting Center: WIBR
                                                                                                                                                                                                                                       Toward a complete human genome sequence
Genome Res. 8 (11), 1097-1108 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MAPPING INFORMATION:
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VECTOR: pBACe3.6
                                              sapiens
```

TAGGAAAAAAAAATCAAAATTGAAAACATCATCCGGTGGAGTCGAGAAAGCCCACACC

301

8 8 8

77581 TATTATÀTAATTATÀTATÀTATÀTATATTATATATATÀTÀTÀTÀTATÀA TICAATACTITITICCACTICTAAAATCTTGGAGATTTGCACCGTTAACTAATTAAGTGTT

421

90 A9

481

361 CACGTGACCCAACATATTAAAATAAGAGTTTGCTCTACAGTAAATGCGATACTTTTTTA

77640

ATATICCAACGGTCCTAAAAAACTTGTGTACCGTGCCTCACATTTCAACTTTGCGCACCC

TGAAAGCCGTTATGTTTTAGGTTAGTGTTTGCAACAGTTGAAGCGCATCACTCAGGAGGCT 600

541

77756

77876 TATAATATAAAGTATATATATATATATATATATATAAAAGTATATATATATATATATAT

CGTACTTGAAACTTATATAAATTACATAATTTTATAAGTTTCACTTCTTATAATACT

661

781 ATABABICGBABABABIGGBABATGTBABABITTGBGGGGGGCBACBABTATATGBABGTCT 840

8 임

601 ACTIGGICTIGCTTTTGCGTCTTTTGTTCACGTGATTTTTGTTGTTGGTGAACACG

```
Query Match
Best Local Similarity 44.3%; Pred. No. 0.028;
Matches 397; Conservative 0; Mismatches 490; Indels 10
                                                                                                                                                                                                                                                                                                                        rpt_family="MER1_type"
9590, .30113
rpt_family="MER1_type"
9726, .29763
rpt_family="MER1_type"
1297. .21413
                                                                                                                                                                                                                                                                                                                                                                                                    /rpt_family="L1"
30528. .30570
/rpt_family="(TTTG)n"
30544. .30851
                                                                                                                                                                                    20299. 27899

/rpt family="MIR"

/rpt family="L1"

/rpt family="L1"

/rpt family="Alu"

28733. 28739

28734. 28842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="(CAA)n"
34392. 34840
/rpt_family="L2"
35098. 35432
                                                                                                                                                                                                                                                                                                                                                                            rpt_family="AT_rich"
0116. .30543
                        /rpt_family="AcHobo"
11864. .22023
                                                /rpt_family="MIR"
22505. .22728
/rpt_family="MalR"
23335. .23569
                                                                                                       /rpt_family="Alu"
35744. .37636
/rpt_family="L1"
36078. .36099
                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="Alu"
80852. 31448
/rpt_family="L1"
81468. 34303
                                                                                                                                                                                                                                                                                                rpt family="Alu" 923\overline{6}. .29591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35098. .35432
/rpt_family="L1"
35433. .35743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rpt_family="L1"
1752. .31774
                                                                                                                                                                                                                                                                                                                                                                                                                                               30851
                 repeat_region
                                           repeat_region
                                                                                                                                                  repeat_region
                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                     repeat_region
                                                                                               repeat_region
                                                                                                                        repeat_region
                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
```

841 ATTATTTAAATTTTCCATTAGAATTCTATTTTCCTTAGTTAATATGAGCTAGCCAGT 897 Search completed: February 24, 2004, 09:43:19
Job time : 6109.31 secs ò

1 TAAAATAATCTATACATTAAAAATTTTGATTTTTAAAATTTTAGAAATTCATGATTTTATT

Gaps

10;

TITITITACCAGAAATCCGTTAATATTGTTAAAATATTTACCAACTAATTTAAAATTTTA 120

TITIAAGGCAATTAAGCATGTTTGATAAATATATATATTGTTATAAATACTTTTCAAAA 180

121

61

g ò 8 à dd 181

Op ò

241

GTATAAAGTIGAIGAIGGCGIGGIAGAITAITITIAGITCTAGGIICGAAIGCAAGII 240

BEST AVAILABLE COPY